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# SANTA CLARA VALLEY WATER DISTRICT

# STEVENS CREEK DROP STRUCTURE MODIFICATION

## FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

PROJECT NO. 102901

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APRIL 2002

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## MITIGATED NEGATIVE DECLARATION

DATE: January 28, 2002

SUBJECT: Negative Declaration – Stevens Creek Drop Structure Modification

Pursuant to the California State Public Resources Code and the California Environmental Quality Act (CEQA) Guidelines, as amended to date, the Santa Clara Valley Water District (District) submits a Mitigated Negative Declaration for the Stevens Creek Drop Structure Modification at Stream Gauge 35 (project). The objectives of the project are to remove an obstruction to fish passage at the stream gauge. This will enable federally threatened steelhead trout to access upstream reaches of Stevens Creek for spawning.

The project will remove existing concrete, sack concrete and concrete debris from an approximately 90 linear foot section of Stevens Creek just upstream of the Highway 85 bridge crossing. The stream gauge will be relocated to the east streambank, and a series of concrete v-weirs will be installed to facilitate fish passage. The channel bottom and bank slopes will be protected with new concrete, sack concrete and rip-rap to prevent scour and facilitate passage of flood flows under Highway 85. Project construction could take up to 185 days, and will occur between June and late-October 2002 within the stream channel, and through December for revegetation work.

## FINDINGS

The SCVWD Board of Directors, having reviewed the Initial Study for the proposed project, consisting of the attached document, finds:

That the proposed Stevens Creek Drop Structure Modification project, with mitigation will not have a significant effect on the environment;

That the project will enhance fisheries resources in Stevens Creek by removing a major barrier at Stream Gauge 35;

That loss of existing native and non-native riparian vegetation, primarily on the west bank south of the existing concrete section, will be mitigated by planting native riparian trees, shrub and groundcover on the east bank just upstream of the pedestrian bridge, approximately 120 feet south of the project site;

That the project will incorporate standard District Best Management Practices (BMP's) that will minimize, or avoid other potential project impacts to the maximum extent practicable; and

That a Negative Declaration be filed as the appropriate CEQA document for this project.

## BASIS OF FINDINGS

The project will not cause significant adverse impacts related to aesthetics, agricultural resources, air quality, cultural resources, geology and soils, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation and circulation, and utilities and service systems. Potential impacts to biological resources will be mitigated to levels not considered significant. In addition, substantial adverse effects on humans, either direct or indirect, will not occur. The project will not affect any important examples of cultural resources from the major periods of California prehistory or history. The project will not result in long term cumulative impacts. Nor will the a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.

The loss of native and non-native riparian vegetation from grading of a temporary access road and construction of the project will not cause a significant long term impact, because the following mitigation measures have been incorporated into the project:

### Mitigation Measures

1) To mitigate for the loss of native and non-native trees and shrubs on the east and west bank within the project footprint, and one native shrub on the east bank, native riparian trees and shrubs will be planted on the east bank slope just south of the pedestrian bridge. The mitigation site is an area largely devoid of riparian vegetation except for non-native grasses and Himalaya berry. A revegetation area of approximately 60 feet (along channel) by 25 feet exists on the lower bank slope, and an area of 100 by 40 on the upper stream bank. After removal of the Himalaya berry, species such as cottonwood, willow, elderberry and alder will be planted on the lower bank. Mid and high bank species will include oak, buckeye, laurel, Fremont cottonwood and native shrubs and groundcover. Due to the presence of an ad-hoc BMX (bicycle) course in this area, vegetation plantings may need to be fenced temporarily during the establishment period. Plants/cuttings shall be installed to meet the mitigation ratio of 3:1 and 1:1 for native and non-native plant losses, respectively. The plantings would be done at a density (or spacing) consistent with the surrounding (undisturbed) habitat. All native material used will be from seeds or cuttings harvested within the watershed. ~~A detailed revegetation plan will be prepared by District staff prior to installation, with~~ In lieu of a formal revegetation plan, plant locations will be flagged by District staff and inspected upon installation per mitigation measure #1, including oversight by a District revegetation specialist during installation, to insure successful completion of this mitigation.

2) Revegetation in the project impact areas will also occur. The temporary access road will be regraded and replanted with landscape plantings lost at the top of the berm, and native riparian plants (collected within the watershed) in the mid and low bank areas. The area between the top of the proposed concrete and the chain link fence separating the pedestrian path on the west bank shall be revegetated with native trees and shrubs (from cuttings or seeds collected within the watershed) such as oak, buckeye, bay-laurel, and elderberry.

District erosion control seed mixes to re-seed the access road and tree replacement materials for access through riparian area are listed in Appendix C. Detailed planting plans for these areas will be prepared by District staff, and as part of the project. The construction contract will include oversight by a District revegetation specialist during installation.

Plantings will be installed with Dri-Water (time release watering product), per product specifications with tube and cap for each plant/cutting. Each cutting shall have between 2-3 units of gel (with tube and cap) placed with it during installation. The Contractor shall inspect time-release watering units. Dri-Water must be replaced when the volume of the unit is at 20% full; refill gel unit will be installed and watered according to manufacturer's specifications. Cap shall be replaced on the tube without contaminating the gel. Plant shall be hand watered thoroughly to a minimum of 6 inches below the deepest root fringe to activate the gel and revive the plants. Contractor shall submit an up-to-date record of all watering and time-release watering activities, including the quantity and location of units replaced. Time release water gel (Dri-Water) shall be monitored on a monthly basis through the first year following planting.

Monitoring protocol will provide for a 2 year inspection-maintenance period for all revegetation plantings, including 80% survival rate criteria. Plant installation shall be done during November and December to ensure the best probability for survival.

Possible impacts to the heritage oak tree on the east bank will not be significant because the following mitigation measure has been incorporated into the project:

3) A licensed arborist from the American Society of Consulting Arborists will review construction plans for soil excavation and concrete placement in the vicinity of the heritage oak on the west streambank. Recommendations of the arborist will be incorporated into construction plans and specifications. If the tree cannot be saved, or dies within 2 years following construction, due to the direct result of that prior disturbance, mitigation at a 3:1 ratio will be done. These trees (contract grown from watershed plant material) would be installed in the upper slope mitigation area which is located to the south of the pedestrian bridge.

   Roots cut that are 2 inches or greater in diameter which must be cut or are damaged during construction operations at any time during the contract period shall be immediately saw cut under direction of the certified arborist into sound wood evenly at right angles to the longitudinal axis of the root, and shall be covered with wet burlap and be maintained wet until recovered with soil.

   Possible impacts from trimming of native trees (temporary access road) to allow for construction vehicles and equipment to access the project site will not be significant because the following mitigation measure has been incorporated into the project.

4) Existing trees and shrubs which are not shown to be removed as part of the project shall be protected from damage by the Contractor's operations. The contractor shall provide a

certified arborist (see above) to direct clearing, grubbing, site preparation, tree trimming or limb removal, and to protect from damage any subgrade irrigation installation belonging to either the District, City of Mountain View, or other property owners. District will notify City of Mountain View should any damage occure to subgrade irrigation system and replacement would be made to City standards. The project engineer may call work to a halt if the arborist is not on site, and no claims for delay nor requests for extension will be granted to the Contractor as a result.

5) A licensed arborist from the American Society of Consulting Arborists will review construction plans for vehicle ingress and egress to the site and provide route restrictions, and mulching guidelines. Recommendations of the arborist will be incorporated into construction plans and specifications.

   All pruning of roots or branches will be done by certified tree works under direction of the arborist according to standard tree pruning guidelines. Spikes shall not be used for climbing live trees to remain. Split and torn branches shall not be left at any location where the Contractor performs trimming operations. Clean cuts shall be made outside the branch ridge or collar, flush cuts are prohibited. No tree wood ~~uld~~ paint shall be applied.

   Contractor shall notify engineer and arborist immediately if any woody plants ~~material located either inside or outside the right of way, is damaged~~ are damaged above or below ground by his/her operations. If damage requires removal of plant, then the Contractor shall remove it at his/her own expense and forfeit from payment an amount equal to the value of the plant or replacement material.

   Roots zones of trees to remain shall be protected by 6 inches of either mulch or pea gravel. This material will be removed upon completion of construction. The Engineer, arborist and Contractor will work together to place orange plastic protective fencing to delineate temporary road route and protection limits. There will be no personnel, material or equipment allowed within the Tree Protection Zone. Shrubs do not require fencing.

   Potential impacts to raptors or other birds nesting in the vicinity of the construction site or temporary access route will not be significant because the following mitigation measure has been incorporated into the project:

6) Preconstruction surveys for nesting raptors and other nesting birds shall be conducted by a qualified wildlife biologist to ensure that no nests will be disturbed during project construction. This survey will be conducted in accordance with the District's Nesting Bird Guidelines (Appendix D.)

The project will not affect steelhead or other aquatic species as construction in the creek channel will be conducted during the June 15 to October 15, which is the low flow period when the stream should be dry. During this time the creek does not provide suitable habitat for these species nor should steelhead adult or smolt migration should occur. If there is streamflow, all native vertebrate species will be relocated during dewatering, by a certified biologist with the appropriate resource agency permits, and intake pipes will be screened to prevent juvenile steelhead from entering the site during construction.

Standard District BMP's (Appendix A) are incorporated into the project to avoid or minimize impacts to water quality, fish and wildlife species, noise, pedestrian and auto travel to levels not considered significant.

Mitigation for the loss for species, due to project construction, by replanting in other areas (upstream mitigation site) will provide equivalent or better functioning habitat than what is lost. Watershed specific genetic material will be used and plant species and spacing will be done to match and blend in with the surrounding existing (undisturbed) native riparian plant community. Therefore there are no significant impacts. With the implementation of the above mitigation measures and Standard District BMPs the project will not lead to fragmentation of habitat, temporary loss of habitat or loss of a heritage tree. Thus, the project will not have any significant impacts.

Attached is the Initial Study prepared for the project. The public can obtain additional copies of the Initial Study, and review documents used in its preparation at the Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118-3614. Please call Linda Horenstein at 408-265-2600 if you would like to have a copy mailed.

# SECTION 1 INTRODUCTION

This section describes the purposes of an Initial Study, the decision process to prepare a Mitigated Negative Declaration (MND), and a short discussion on other public agencies whose approval is required through the permitting process.

## 1.1 PURPOSE OF THE INITIAL STUDY

The Santa Clara Valley Water District (District) has prepared this Initial Study pursuant to the California Environmental Quality Act (CEQA) for the Stevens Creek Drop Structure Modification. CEQA lists seven purposes of an Initial Study (CEQA Guidelines 15063[c]):

a) Provide the lead agency (i.e., the District) with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a ND;

b) Enable a lead agency (i.e., the District) to modify a project; mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND;

c) Assist in the preparation of an EIR, if one is required;

d) Facilitate environmental assessment early in the design of a project;

e) Provide documentation of the factual basis for the finding in a ND that a project will not have a significant effect on the environment;

f) Eliminate unnecessary EIRs;

g) Determine whether a previously prepared EIR could be used with the project.

## 1.2 DECISION TO PREPARE A NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION

According to CEQA Guidelines Section 15070, a public agency shall prepare a proposed ND or a Mitigated ND when:

a) The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

b) The Initial Study identifies potentially significant effects, but:
    1) Revisions in the project plans made before a proposed Mitigated ND and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

## 1.3 PROJECT BACKGROUND

Three fish ladders were constructed in 1983 at Moffett Blvd., Evelyn Avenue and Fremont Avenue as part of the Stevens Creek Flood Control Project. In 1995, the District hired a consultant, Trihey and Associates, to evaluate the Fremont and Moffett fish ladders within the context of the physical condition of Stevens Creek. The consultant found the fish ladders were not performing as intended, but also inventoried a number of additional fish migration barriers on the creek between the mouth and Stevens Creek Reservoir, one of which was the project, drop structure Stream Gauge 35.

The passage barrier at the project site was one of the barriers ranked as a high priority for remediation by a District study. As a result the District designed this project to provide improved fish passage. Just north of the project site, the Highway 85 sacked concrete channel and concrete drop structure below the bridge have also been identified for future improvement. However, as this area is within the jurisdiction of Caltrans, it is not included in the proposed District project.

## 1.4 REGULATORY REQUIREMENTS

Construction of the proposed project will require new regulatory authorization from the following agencies.

a) United States Army Corps of Engineers

The United States Army Corps of Engineers (Corps) regulates discharges of dredged or fill material into waters of the U. S., which includes wetlands and ordinary high water, under Section 404 of the Clean Water Act and under Section 10 of the Rivers and Harbors Act. Two types of permits exist: individual and general. Nationwide permits (NWPs) are a type of general permit issued for a group of activities found to have a minimal effect on the environment by the Corps. If an activity has more than minimal effect or does not fit the parameters of a NWP, then the Corps issues an individual permit.

b) United States Fish and Wildlife Service/National Marine Fisheries Service

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) implement and enforce the Endangered Species Act (ESA) of 1973 as amended. Under the ESA, it is unlawful to "take" listed species of plants and animals. Take is defined as: "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect . . . or to engage in any such conduct."

USFWS has also defined take to include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter. Under Section 7 of the ESA, consultation with USFWS and NMFS will occur in conjunction with review of the Corps' application.

c) Regional Water Quality Control Board

Under Section 401 of the Clean Water Act, the Regional Water Quality Control Board (RWQCB) has the authority to waive or certify projects subject to the Corps jurisdiction for water quality impacts. For the proposed fish passage project, the District will request a certification/waiver from the Regional Board, who will review Corps permit applications for the project.

d) California Department of Fish and Game

If an activity diverts, obstructs, or changes the natural flow or the bed, channel, or bank of any river, stream, or lake, in which there are at any time an existing fish or wildlife resource or from which these resources derive benefit or if an existing fish or wildlife resource may be substantially adversely affected, the California Department of Fish and Game (CDFG) requires notification. CDFG can issue individual streambed alteration agreements (1601) or they can develop, in concert with an applicant, an MOU.

e) Caltrans

A portion of the construction work will occur within the Caltrans Highway 85 right-of-way, although not within the existing roadway. Work within the right-of-way requires an encroachment permit. A Standard Encroachment Permit application was forwarded to Caltrans on April 16, 2001.

f) City of Mountain View

The General Plan for the City of Mountain View contains goals and policies concerning wildlife and wildlife habitats. One of the policies is to protect and restore plant and wildlife habitats along existing creeks, including Stevens Creek. The District is a separate public entity and the maintenance of creeks and channels within its jurisdiction is not subject to local ordinances; however, the District has similar objectives within its stream stewardship and environmental policies. The District is working with the City on project issues such as construction scheduling, signage, revegetation and other neighborhood concerns. ~~The City will have the opportunity to comment on this District project through review of this CEQA document during the public review process.~~The District and City of Mountain View are in the process of negotiating a Joint Use Agreement for temporary access across City lands and encroachment on public right-of-way for this project.

## 1.5 ORGANIZATION OF THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

The Mitigated Negative Declaration is located at the beginning of the document after the Table of Contents. Section 2.0 describes the features of the project, the environmental setting, and location. Section 3.0 is the Environmental Checklist. Section 4.0 addresses the potential impacts of project construction. Section 5.0 lists additional District personnel who contributed to this document and references used in its preparation

# SECTION 2. PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

## 2.1 PROJECT LOCATION

The project site is located in Santa Clara County on Stevens Creek in the City of Mountain View. The site is approximately 150 feet upstream of the Highway 85 overcrossing, in the vicinity of Central Avenue, north of Central Expressway. (See Figures 1 & 2, project maps.) The site contains a V-weir drop structure constructed to accommodate Stream Gauge 35. Two additional drop structures lie immediately downstream. A pedestrian bridge crosses Stevens Creek approximately 100 feet upstream (south) of the site, and a pedestrian/bicycle path is located on the west stream bank above the site (See Photos 1 & 2). Generally town homes and single family residential housing surround the site. Highway 85 separates the project from downstream residences.

## 2.2 ENVIRONMENTAL SETTING

Hydrology and Geomorphology: The Stevens Creek drainage basin covers an area of approximately 25.0 square miles above the project site. Stevens Creek headwaters are near Saratoga Gap in the Santa Cruz Mountains. The mainstem and tributary creeks flow into the Stevens Creek Reservoir, and then north into the cities of Cupertino, Los Altos and Mountain View, entering a San Francisco Bay tidal channel near Moffett Field/Ames Research Center. The project site is in the lower portion of the watershed, about ½ mile above the tidally influenced channel and approximately 3 miles above the confluence with San Francisco Bay. The hydrology of the lower basin, including the stream channel in the project vicinity has been altered by human activity. The upstream Stevens Creek Reservoir has affected runoff and sediment carrying capacity. In some locations, including the project area, the creek has been channelized with bank slope reinforcement for flood control.

Runoff in Stevens Creek varies dramatically between winter and summer months. The gauging station at the project site has been operating continuously since 1942, and has recorded runoff levels as high as 3300 cubic feet per second (cfs) in April 1958. Dry season flows typically range from 0 to 5 cfs. These management activities resulted in a dry channel during late-spring and summer months in 2000 between Homestead Rd. to Middlefield Rd.

Normal District groundwater percolation operations result in a dryback from below Fremont Ave. to Middlefield during summer months (J. Abel, personal comm 2001). During observations in 2001, Stevens Creek at the project site was flowing at 1-2 cfs on March 29, but was dry on May 2.

The Stevens Creek channel in the project vicinity is incised approximately 15 feet below the surrounding ground surface. The natural channel has relatively low sinuosity; however, the channel in the project area has been further straightened and confined giving it a relatively uniform cross-sectional geometry with steep, reinforced side slopes. The channel bottom is concrete-lined for approximately 100 linear feet through the project area. A concrete weir~~drop~~ structure extends across the channel providing the in-stream structure for the stream gauge. The weir has a downstream drop of 36" at the outer edges, sloping to a 20" drop at the mid-section. A ~~second~~ drop structure lies approximately 25 feet downstream, and has a 39" drop. Another ~~third~~ drop structure lies another 11 feet downstream and has a two-foot drop~~,~~ with a ~~tapering to~~ 18"tall "V" at the center.

These two lower structures were installed to provide grade control for the stream gauge weir, and possibly to control flows into the Highway 85 overpass channel. Concrete aprons line the channel between and downstream of the weirs. Just upstream of the Highway 85 overpass, the concrete transitions to a sacked concrete lining. A scour hole has been created where concrete sacks have eroded just upstream of the bridge. Further downstream, under the Highway 85 overpass, the channel cross-section becomes somewhat more confined by two bridge piers. Channel bottom substrate under the bridge is sacked concrete although the sacks are covered with sand, gravel and cobble deposits in some areas.

Channel banks in the project area are steeply sloping (1:1) and have been reinforced with sacked concrete slope protection (SCSP) and concrete. Ruderal vegetation has established within some openings or irregularities in the sacked concrete, and in some areas at the top of bank adjacent to the maintenance road. Species consist primarily of mallow, mustard, radish, non-native grasses and poison oak.

**Biology:** Habitats existing at and in the vicinity of the site include native willow-cottonwood riparian forest and non-native ruderal communities. Landscaping with natives as well as non-native aclimatized species also exists near the top of slope above and below the maintenance road and in the vicinity of the pedestrian bridge. These communities occur both separately and blended together at the site. The concrete and sacked concrete sections of the channel slopes in the immediate project vicinity contain scattered low-growing ruderal vegetation, contrasting significantly with the relatively dense riparian forest upstream with moderate canopy closure. Ruderal species are also common in the upstream forest understory.

Dominant native tree species in the area include Fremont cottonwood (Populus fremontii), red willow (Salix laevigata), elderberry (Sambucus mexicanus), buckeye (Aesculus californica), white alder (Alnus rhombifolia), and coast live oak (Quescus agrifolia). Non-native black walnut (Juglans californica var. hindsii) is also present.

Shrubs are sparsely scattered through the trees and included the non-native Italian buckthorn (Rhamnus alaternus), tree tobacco (Nicotiana glauca), lilac (Ceanothus sp.), and native coyote brush (Baccharis pilularis).

Herbaceous understory consists largely of ruderal species such as Italian ryegrass (Lolium multiflorum), smilo grass (Piptatherum miliaceum), fennel (Foeniculum vulgare) and Italian thistle (Carduus pycnocephalus). This vegetation is found on the east and west streambank upstream of the concrete bank slopes. Vegetation on the west bank slope above (west of) the pedestrian trail includes coast live oak, non-native black walnut and non-native olive (Olea europaea). Upstream of the pedestrian bridge dominant tree and understory species include red willow, arroyo willow (Salix lasiolepis), Fremont cottonwood, black cottonwood (Populus trichocarpa) and white alder. Non-native black locust (Robinia pseudoacacia) is also present on the west bank. Non-native grasses and Himalayan blackberry (Rubus discolor) are present extensively in the understory on both banks above the bridge.

Animals known and expected in the project vicinity include relatively common mammal, reptile, amphibian and bird species (H.T. Harvey & Associates, 2001). Species nesting in the riparian habitat could include raptors such as the Cooper's hawk (Accipiter cooperii), red-shouldered hawk (Buteo lineatus), American kestrel (Falco sparverius) and barn owl (Tyto alba). Other nesting species include chickadee (Poecile rufescens), bushtit (Psaltriparus minimus) and Bewick's wren (Thryomanes bewickii).

Mitigation for the loss for species, due to project construction, by replanting in other areas (upstream mitigation site) will provide equivalent or better functioning habitat than what is lost. Watershed specific genetic material will be used and plant species and spacing will be done to match and blend in with the surrounding existing (undisturbed) native riparian plant community. Therefore there are no significant impacts. With the implementation of project mitigation measures and Standard District BMPs the project will not lead to fragmentation of habitat, temporary loss of habitat or loss of a heritage tree. Thus, the project will not have any significant impacts.

**Sensitive Species:** Only one special status plant species, western leatherwood (Dirca occidentalis), would be expected in a riparian habitat in this region (H.T. Harvey & Associates 2001). However, habitat at the site is not optimal for this species, and it was not observed during site visits by the H.T. Harvey and Associates biologists or this consultant (John Gilchrist). Pre-construction surveys will be conducted again this spring for this plant. It is unlikely that the plant will occur at this location. During spring surveys, should the plant be located within the project site, appropriate measures to either avoid or relocate it, per certified biologists recommendation would take place. With the implementation of standard District standard BMPs, there will be no significant impact.

The federally threatened California red-legged frog (Rana aurora draytonii) has not been recorded in the lower reaches of Stevens Creek for many years (H.T. Harvey & Associates, 1997; SCVWD, 2001), and would not be expected to be breeding at or near the site due to habitat conditions.

High flows could occasionally wash red-legged frogs down from upstream breeding locations. The southwestern pond turtle (Clemmys marmorata pallida), a federal and state species of concern, is also unlikely to be present at the site due to habitat conditions, but could also occasionally be washed down from upstream locations. The project will be constructed during the summer when the creek should be seasonally dry. Thus eliminating suitable habitat for either species. Therefore there is no significant impact.

Stevens Creek does support the federally threatened steelhead trout (Oncorhynchus mykiss). Spawning habitat is not present at the project site. Juvenile and adult steelhead likely move through the area to upstream spawning grounds, although a number of barriers, including the barrier at Stream Gauge 35, restrict adult steelhead upstream migration. Recent stream sampling also recorded native California roach, Sacramento pikeminnow, Sacramento sucker and three spine stickleback in Stevens Creek. Non-native fish species included mosquitofish, channel catfish and green sunfish (Habitat Restoration Group, 1995). Additional information on fisheries resources and habitat conditions in Stevens Creek is included in Appendix B, Fisheries Evaluation by Entrix Inc.

**Land Uses:** Land uses in the project vicinity are predominately residential. Two multiresidential town home complexes are present above the west bank, north and south of the pedestrian bridge. A mix of single family residences and townhouse or apartment complexes lie further west. These residences gain access from Central Ave. Highway 85 and on/off ramps to the freeway are located to the east. East of Highway 85 is single and multi family residences. However this neighborhood is isolated from the project site by the freeway and would not be affected by the project. On the westerly streambank, directly adjacent to the project site is a District maintenance road that has been improved as a bicycle-pedestrian path and receives extensive use by area residents.

This path crosses Stevens Creek on a dedicated pedestrian bridge south of the site near the Central Avenue cul-de-sac, and continues south to another dedicated pedestrian/bicycle overpass over Central Expressway and the rail lines. Highway 85 crosses Stevens Creek just north of the project area, while Central Expressway crosses the Creek approximately 900 feet south. PG&E overhead transmission lines are located along the Highway 85-Stevens Creek corridor, with a tower on the west streambank south of the pedestrian bridge, and a second tower at the east end of the bridge.

## 2.3 PROJECT DESCRIPTION

The purpose of the project is to remove a fish passage barrier that occurred with construction of a weir that houses the instream components of Stream Gauge 35. The barrier includes two additional smaller drop structures (part of the stream gauge) that are located just downstream of the stream gauge weir. After excavation of the existing structures, a series of concrete V- weirs will be constructed to remove the fish obstructions and restore the natural stream gradient. The instream gauge measuring components will be relocated about 50 feet upstream, and instrument housing relocated to the upper east streambank. Figures and photographs showing the proposed project location are found in Section 6 at the end of the Initial Study.

**Work Schedule and Timing:** Project construction is expected to take a maximum of 185 days (6 months). Project construction will occur Monday-Friday, 7:30 AM to 6 PM. Construction activity in the stream channel is proposed for the period between June 1, and October 15, 2002. Out of channel work, such as revegetation will continue through December.

**Control of Water During Construction:** If for some reason streamflows occur, the channel work area will need to be dewatered prior to beginning construction. The stream channel above the pedestrian bridge will be dewatered by installing a coffer dam within the channel and fish may need to be removed, per permit conditions. Upstream flows will be bypassed around the work area by pumping or gravity, and existing flows will be maintained downstream of the work area at all times. All water that accumulates in the construction zone will be removed so that work can be performed under dry conditions. Water pumps will be screened to prevent entrapment of fish, and turbidity will be minimized using Standard District BMPs (Table 1). At pump discharge points, temporary sediment catch basins or filtering bags will be installed to trap sediment before it enters the creek. In-stream equipment used during construction will be confined to the dewatered channel, and all dams and dewatering equipment will be removed after construction. Groundwater will be disposed of per BMP Number 1.12.

**Project Construction:** Equipment to be used during the excavation and channel reconstruction will likely include a backhoe loader, bulldozer, rubber-tire loader, end-dump trucks, a concrete truck with pumper and hand tools such as jackhammer, concrete saw cutter and vibrator compactor. Due to the District and City of Mountain View's desire to maintain unobstructed use of the pedestrian trail, all construction will occur from the bottom of the stream channel. ~~Although intermittent closure (for a few hours per day) during work such as, but not limited to, concrete removal may be needed to ensure public safety~~City and District determined that trail closures would not be necessary, unless due to a safety issue. Additionally, 8-foot high plywood sheets will be installed along the top of the channel as a sound and construction safety barrier.. Signage would be posted in advance to notify trail users.

Construction staging and equipment storage will occur at the end of the Central Avenue cul-de-sac. In addition to limiting the contractor's staging/storage area at the cul-de-sac, there will be six feet of clearance from the sidewalk curb near the trail entrance for emergency access as required by the City's Fire Department~~.—~~. Access to the project site will necessitate the construction of a temporary access road from Central Avenue to the stream channel. Construction equipment will cross over the curb and up the berm, then down a temporary accessway to a flat flood terrace largely vegetated with native cottonwood, non-native black locust and ruderal grasses. The contractor will avoid disturbance of any native plant species, including cottonwood, per Mitigation Measure #4. . District (contractor) will be responsible for repair of any damage, as a result of construction, to the sidewalk, curb or gutter. The graded accessway continues to the creek bottom just upstream of the pedestrian bridge. The contractor will use this route and the dewatered channel to access the construction site. See Appendix C.

The in-channel weirs, concrete channel lining and concrete and sacked concrete side slopes will be removed along a 115~~35~~-foot section of creek where the new concrete weirs will be constructed. The channel bottom and stream banks will be excavated to allow placement of the concrete bottom foundation and V-weirs, as well as a layer of permeable material underneath for weep holes along the channel bottom and side slopes. Removal of bank slope protection and soil will occur up to the approximate elevation of the pedestrian path (about 13' vertical) on both streambanks. Care will be taken not to disturb native vegetation near the top of east bank (oak, buckeye and elderberry), however a single coyote bush shrub will be removed. On the west bank, the project will require removal of native and non-native trees and shrubs upstream of the existing protected bank slopes. (See Table 1.) Again, care will be taken to protect other trees and shrubs located outside the construction zone.

Concrete slabs, sacked concrete, excess soil, vegetation and other debris will be loaded into dump trucks and removed via the temporary access road.

Minor recontouring of the bank slopes will occur to provide the suggested 1:1 slope. After grading the channel to the suggested slopes for both streambanks and the channel invert (3.2% downward), an 8 to 12 inch layer of permeable material consisting of drain rock will be placed on top of a geotextile fabric. This layer provides the necessary drainage required for the installation of weep holes in various locations. The side slopes and channel bottom will be formed and concrete poured either directly from a rear-discharge concrete truck or through a hose line using a pump from the truck. The V-shaped weirs will then be formed and constructed of reinforced concrete using the same method for the pouring of concrete. Four 47" ~~foot~~-high V-shaped weirs along the centerline will be installed into the concrete channel floor, spaced approximately 24' apart. The concrete-lined channel will extend to the existing top of bank elevations to prevent scour and bank instability during high flows.

The new instream gauge will be located above the upstream weir with conduits running to a new stage recorder housing on the east streambank. The existing recorder housing above the connector bolts will be salvaged and attached to a new corrugated steel pipe (CSP) stilling well at the new aforementioned location. The existing stilling well will be cut flush with top of trail pavement and backfilled.

The upstream and downstream ends of the concrete channel lining will be protected with rock rip-rap and sacked concrete slope protection (SCSP), respectively. The size of the rip-rap is 3 feet in diameter and will conform to existing grade. The sacked concrete slope protection and invert lining at the downstream end of the structure will also conform to the existing grade and existing sacked concrete.

Further downstream from the structure (approx. 18.5 feet from the end of the concrete channel lining), an existing scour hole/eroded section of the channel bottom will be backfilled, patched with new sacked concrete, and conformed to existing grade.

**Construction Clean-up**: The temporary access road will be removed and the area will be restored prior to demobilization. Restoration of the area includes removal or backfilling the access road in those areas where grading or excavating was performed. Surface soils will be scarified to allow proper rooting for plants, and the finished slope surface ~~will be similar to original condition.~~ will be restored to pre-construction condition or better. Project clean up will consist of hauling construction equipment and excess materials from the site, removing temporary facilities, the coffer dam and conveyance equipment (if needed), temporary fencing, and any other work required to leave the project site in a clean and orderly manner. No debris will be left in or adjacent to the stream channel.

**Project Operation:** The five new V-weirs are designed to facilitate fish passage while supporting the stream gauging station. During low flows the pools between the weirs would fill with natural stream material (sand, gravel and cobble). However significant flows would scour pools immediately downstream of each weir, and the vortex weirs are designed to self-maintain the downstream pool by concentrating flow in the center of the structure. All District facilities, including those for fish passage, are inspected twice per year at the following times; one inspection prior to June 15 and another prior to December 15, to ensure that facilities are operating effectively. If a site is found to need maintenance the inspector will notify the watershed manager who will then determine the appropriate course of action. The facility (vortex weirs) will be kept free of debris and excess sediment to prevent vegetation growth and impairment of fish passage.

The scour pools below each weir can be up to 1.2 meters (4 feet) deep, with a drop between weirs of 0.~~2~~3 meter (0.86~~75~~ feet). At a depth of 4 feet and with 13 feet channel bottom width, the calculated pool volume that allows for full energy dissipation is 825 cubic feet, which is more than the required pool volume of 792 cubic feet when using the 10% exceedence flow of 66 cfs. The calculated pool volume was determined by using an effective pool length of 10 feet instead of the proposed 24 feet distance between the weirs since the ensuing flow energy from the previous pool is localized at this region. Additionally, the V-notch weirs have a flow depth of approximately 8 inches for flows of around 2.5 cfs, which was the targeted minimum flow for the denil fish ladders along Stevens Creek (J. Abel, 11/7/01, personal communication). This meets the CDFG minimum requirement of 6" depth of water for the downstream migration of smolts. (CDFG, 1998).

**Revegetation**: Exposed bank slopes that are not protected with concrete or sacked concrete will undergo erosion control treatment and be revegetated with native plant species. For erosion control, either straw or coconut fiber erosion control blankets will be installed on all bank slopes with exposed soil. It is expected that native groundcover will be established when the blankets decompose (2 years).

Final plantings will consist of watershed specific material consisting of cuttings, contract grown plants or direct seeding to be installed in disturbed construction zones and mitigation sites. Lower bank slope riparian species will include: red willow, arroyo willow, Black cottonwood, and California blackberry and wild rose. Drier species such as valley oak, coast live oak, blue elderberry, and California bay will be planted on upper slopes. The landscaped berm near Central Ave. will be replanted with same species impacted by the temporary access road (See Appendix C). Plants will be randomly spaced to replicate natural conditions. Riparian plantings on the lower streambanks will provide shaded riverine aquatic (SRA) cover in accordance with mitigation requirements. It is expected that lower riparian trees will begin to provide significant SRA cover within 3-5 years, with increasing cover and habitat value occurring thereafter. All revegetation will meet performance standards, success criteria and monitoring requirements established in CDFG permit conditions.

**Additional Best Management Practices (BMP) to Avoid Impacts during Construction:** In addition to the specific project mitigation measures indicated in this Initial Study, the District will incorporate the following measures listed below in Table 1 in the project description and construction documents. These measures are standard District operating procedures (best management practices) and will avoid, minimize, reduce or compensate for potential project impacts. They will be placed into contractor plans and specifications.

## SECTION 3. ENVIRONMENTAL CHECKLIST FORM

### 3.1 BACKGROUND

| | |
|---|---|
| 1. Project Title: | Stevens Creek Drop Structure Modification |
| 2. Lead Agency Name and Address: | Santa Clara Valley Water District<br>5750 Almaden Expressway<br>San Jose CA 95118 |
| 3. Preparer and Phone Number: | John Gilchrist, Environmental Consultant<br>(831) 429-4355 |
| District Contact Person | Melissa Dargis, Environmental Planner<br>(408) 265-2600 |
| 4. Project Location: | See 2.0 PROJECT DESCRIPTION |
| 5. Project Sponsor's Name and Address: | Same as Lead Agency |
| 6. General Plan Designation: | Regional Park (streambank and path) |
| 7. Zoning: | Public Facility |
| 8. Description of the Project: | See 2.0 PROJECT DESCRIPTION |
| 9. Surrounding Land Uses and Setting: | See 2.0 PROJECT DESCRIPTION |

Other public agencies whose approval is required: US Army Corps of Engineers, Regional Water Quality Control Board-San Francisco Bay Region, California Dept. of Fish and Game, Caltran

## 3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

| | | | | | |
|---|---|---|---|---|---|
| | Aesthetics | | Agricultural Resources | | Air Quality |
| X | Biological Resources | | Cultural Resources | | Geology/Soils |
| | Hazards & Hazardous Materials | | Hydrology / Water Quality | | Land Use / Planning |
| | Mineral Resources | | Noise | | Population / Housing |
| | Public Services | | Recreation | | Transportation / Traffic |
| | Utilities / Service Systems | | Mandatory Findings of Significance | | |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 1. AESTHETICS. Would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | | | | X |
| b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? | | | | X |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | | | X | |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area | | | | X |
| 2. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project: | | | | |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | | | | X |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | | X |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? | | | | X |
| 3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | | | | X |
| b) Violate any air quality standard or contribute to an existing or projected air quality violation? | | | | X |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | | | | X |
| d) Expose sensitive receptors to substantial pollutant concentrations? | | | | X |
| e) Create objectionable odors affecting a substantial number of people? | | | | X |
| 4. BIOLOGICAL RESOURCES. Would the project: | | | | |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in section 4.0 Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | X | |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | X | | |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | | | X |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | | | X | |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | X | | X |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | | | | |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 5. CULTURAL RESOURCES. Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | | | | X |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | | | | X |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | | | | X |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | | | | X |
| 6. GEOLOGY AND SOILS. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | | | | X |
| b) Strong seismic ground shaking? | | | | X |
| c) Seismic-related ground failure, including liquefaction? | | | | X |
| d) Landslides? | | | | X |
| e) Would the project result in substantial soil erosion or the loss of topsoil? | | | X | |
| f) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| g) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | | | | X |
| h) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. | | | | X |
| 7. HAZARDS AND HAZARDOUS MATERIALS. Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | | X |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | | | X | |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school? | | | | X |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0 Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | | | | X |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | | | | X |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | | | | X |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | | | | X |
| 8. HYDROLOGY AND WATER QUALITY. Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | | | X | |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (for example, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site. | | | X | |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. | | | X | |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | | | | X |
| f) Otherwise substantially degrade water quality? | | | | X |
| g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | | | | X |
| h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows? | | | X | |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| j) Inundation by seiche, tsunami, or mudflow? | | | | X |
| 9. LAND USE AND PLANNING. Would the project: | | | | |
| a) Physically divide an established community? | | | | X |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | | | | X |
| c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan? | | | | X |
| 10. MINERAL RESOURCES. Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | | | | X |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | | | | X |
| 11. NOISE. Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels? | | | | X |
| c) Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | | | | X |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | | | X | |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | | | | X |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | | | | X |
| 12. POPULATION AND HOUSING. Would the project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | | | | X |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0 Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | | | | X |
| 13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: | | | | |
| a) Fire protection? | | | | X |
| b) Police protection? | | | | X |
| c) Schools? | | | | X |
| d) Parks? | | | X | |
| e) Other public facilities? | | | | X |
| 14. RECREATION. Would the project: | | | | |
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | | | | X |
| b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | | | | X |
| 15. TRANSPORTATION/TRAFFIC. Would the project: | | | | |
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (for example, result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | | | | X |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks? | | | | X |
| d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)? | | | | X |
| e) Result in inadequate emergency access? | | | | X |
| f) Result in inadequate parking capacity? | | | X | |
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (for example, bus turnouts, bicycle racks. | | | | X |
| 16. UTILITIES AND SERVICE SYSTEMS. Would the project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | | | | X |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction or which could cause significant environmental effects? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | | | | X |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | | | | X |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | | | | X |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | | | | X |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | | | | X |
| 17. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project: | | | | |
| a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | | | | X |

| 3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section 4.0-Environmental Evaluation) | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.) | | | | X |
| c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | | | | X |

## 3.4 DISCUSSION OF ENVIRONMENTAL EVALUATION

See Section **4.0 ENVIROMENTAL EVALUATION**

## 3.5 DETERMINATION:

On the basis of this initial evaluation:

| | |
|---|---|
| I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. | |
| I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. | X |
| I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required. | |

| | |
|---|---|
| I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. | |
| I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. | |

Signature

3-25-02
Date

Jason Christie
Watershed Support Manager

## SECTION 4. ENVIRONMENTAL EVALUATION

The following discussion provides an analysis for the response to each question on the checklist.

### 4.1 AESTHETICS

Would the project:

a) have a substantial adverse effect on a scenic vista;
b) substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;
c) substantially degrade the existing visual character or quality of the site and its surroundings; or
d) create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project site is located adjacent to a bicycle-pedestrian path on the west and south and Highway 85 on the east side. The existing channel bottom and banks are presently armoured with concrete and sacked concrete and are therefore not visually appealing. With project construction, concrete will continue to exist in areas where it is presently located, and the sacked concrete will be replaced with concrete. New rock rip-rap will be placed in the channel bottom for a distance of 15 to 30 feet upstream of the upper weir. New concrete and rip-rap will be installed on the east and west bank slopes for a distance of up to 50 feet south of the existing concrete and concrete sacks, eliminating some ruderal and native vegetation on the both bank slopes. There is little native riparian vegetation in these areas because both bankslopes are underlain by concrete debris and rip-rap. Species are generally small and provide sparse coverage of the slopes. The addition of concrete and rip-rap will be a negligible increase to what presently exists between the 85 bridge and the pedestrian bridge. When the creek is dry the concrete V-weirs will be a visible feature in the stream channel, similar to the existing drop structure. Additional enhancement plantings (low growing shrubs) will be incorporated into the mitigation area to compensate for the loss of the sparse vegetation (in the area underlain with rip rap and concrete debris) along approximately 50 linear feet of bank slopes. The sub-surface rip-rap will be replaced with new rock rip rap and some concrete. All plantings will be from watershed specific genetic stock, per mitigation measures. With implementation of this enhancement measure and standard District BMPs there are no significant impacts.

Due to the entrenched condition of Stevens Creek some 15 feet below the surrounding ground, the stream channel and bank slopes are not easily viewed from distant locations. However, the project areas will be visible from areas in relatively close proximity to the site, with the most prominent view from the recreational trail at the top of the west streambank. To some extent views from the pedestrian bridge will be affected, although views from the bridge are obscured by intervening riparian vegetation that will remain.

This trail and the bridge across the creek south of the project site are used extensively by recreationalists including joggers, bikers and walkers. Portions of the east bank slope are also visible to some residents in dwellings above the west bank path.

After construction, there will be some revegetation of areas impacted by construction activities however it may take 2 to 3 years for landscape and native riparian vegetation to reestablish and cover bare ground. Revegetation mitigation is discussed in the biology section. The project site is not within a scenic highway, and is not visible from Highway 85.

There will be some short term visual impacts during construction and during the initial plant establishment period (1-2 years), although these are not significant. Removal of the vegetation on the east and west banks, and replacement with concrete will be visible from some locations on the pedestrian-bike bridge. However, given the existing expanse of concrete and sack concrete lined channel, this minimal additional area of concrete is not considered significant. Presence of construction equipment in the Central Avenue staging area, and demolition of the existing facility in the stream channel may adversely affect views of these areas during construction. Because the project should be completed within 6 months, the effects of construction staging and stockpiling on area views will be temporary and therefore, not significant. Based on the aforementioned paragraphs, with the implementation of standard District BMPs and mitigation measures (revegetation) there will be no significant aesthetic impacts.

## 4.2 AGRICULTURAL RESOURCES

Would the project:

a) convert prime or unique farmlands or farmland of statewide importance to non-agricultural use;
b) conflict with existing agricultural zoning or Williamson Act contracts; or
c) involve other environmental changes which, due to their location or nature, could result in conversion of farmland to non-agricultural use?

The project is not located within or adjacent to any farmland or agricultural activities. The surrounding land uses are exclusively residential, state highway and park/public pathway.

## 4.3 AIR QUALITY

Would the project

a) conflict with or obstruct implementation of the applicable air quality plan?

This is a short-term construction project to modify a barrier to fish migration on an existing stream. It will have no effect on implementation of the regional air quality plan.

Would the project:

b) violate any air quality standard or contribute to an existing or projected air quality violation;
c) c) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under a federal or state ambient air quality standard; or
d) d) expose sensitive receptors to substantial pollutant concentrations?

The project site is located in the Bay Area Air Quality Management District (BAAQMD). The Bay Area is in attainment for all national standards, but is in non-attainment under state standards for ozone (one-hour standard) and fine particulates (PM 10) (both annual mean and 24-hour standards). As the project is not a permanent development project, there will be no long term increases in air emissions or contributions to existing or projected air quality violations.

Project components include removal of existing concrete and sack concrete slope protection (SCSP), slope recontouring, and construction of new concrete channel bed, bank slope, and v-weirs. A new stream gauge, rip-rap, SCSP and landscaping will also be installed. The construction will occur over an area of approximately 3617 square feet (0.08 acre), during a 6 month period. An additional area will be used for construction access. This is a relatively small area of disturbance that could result in limited generation of particulates; however, District BMP's will ensure that PM10 levels do not exceed levels of significance. The amount of particulates would not be expected to significantly contribute to cumulative emissions or violate an air quality standard. Further the project, because of its small scale and relatively short construction window will not require a large number of trucks or machinery; therefore exhaust emissions will be below levels of significance. There are no BAAQMD thresholds that will be exceeded as a result of the project.

Would the proposal:

e) create objectionable odors affecting a substantial number of people?

Removal of existing slope protection and installation of concrete, SCSP and rip-rap are not expected to cause objectionable odors. Occasionally diesel fumes and exhaust from equipment could be noticeable to persons using the bike-pedestrian path, however, these occurrences are not expected to be numerous and would not differ significantly from exhaust odors from Highway 85 adjacent to the site, and Central Expressway to the south.

## 4.4 BIOLOGICAL RESOURCES

Would the project:

a) have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special-status species?

Stevens Creek in the vicinity of the project is known to support steelhead trout. Other aquatic species of concern include California red-legged frog and southwestern pond turtle. The potential for pond turtle and red-legged frog has been reviewed but potential habitat does not exist on Stevens Creek in the project vicinity.

Other possible species of concern include nesting raptors. Per the District's Nesting Bird Guidelines (Appendix D), the site will be surveyed prior to construction for nesting birds, including raptors, and appropriate avoidance or protection measures would be implemented.

Steelhead trout (Oncorhynchus mykiss) has been listed as a threatened species in the Central Coast Evolutionary Significant Unit (including Stevens Creek) under the Federal Endangered Species Act (ESA). The National Marine Fisheries Service has also listed streams in the Central Coast ESU as critical habitat, subject to the section 4(d) rule in the ESA (NMFS 1999).

This rule identifies specific activities that could cause a species' take, and protective regulations or prohibitions critical to steelhead recovery. Standard District BMPs, such as species' relocation prior to construction, fish screens on diversion intakes, and prohibition of toxic discharges, are consistent with recommended actions in the critical habitat designation.

Adult steelhead do move through the project area to upstream spawning areas. Adult upstream migration begins in late November and may run through March. As steelhead can spawn more than once, adults will migrate downstream to the ocean in the spring. Typically juveniles rear in the stream for 1 to 3 years and then migrate as smolts to the ocean between March and June, depending on flow conditions.

Juvenile young of the year steelhead utilize riffle and run habitat during the summer-fall growing season and move to deeper, slower water habitat during the high flow months (Shapovalov and Taft, 1954). Larger steelhead use the same areas as well as heads of pools for feeding. Factors adversely affecting steelhead in Stevens Creek may include alteration or modification of instream habitat, urbanization and questionable water quality (including high stream temperatures) (NMFS 1997). Reliable data on the number of adult steelhead using the Stevens Creek system for spawning is not available; however, this number may have the potential to increase as migration barriers are removed.

Stream habitat typing was conducted on Stevens Creek during the summer of 1999. The focus of the survey was to determine the availability and quality of rearing and spawning habitat for rainbow trout (steelhead). The surveyed reaches of Stevens Creek were 49% pool habitat, 36% run and 15% riffle habitat. Spawning and rearing habitat were generally lacking at the downstream end of the project site, but improved further upstream in the system. Absence of spawning gravels, and lack of food and cover, and high temperatures were noted downstream of the project site. The most suitable habitat for steelhead spawning and rearing is located upstream of Fremont Avenue (J. Smith, personal communication, 2001). Further information on habitat conditions in Stevens Creek is contained in the Entrix study (Appendix B).

Although migrating steelhead will pass through Stevens Creek in the vicinity of the project, the project has been scheduled to avoid the up and down stream migration period. It is also unlikely that summer rearing juvenile steelhead could be in, or attempt to move into the project area during the construction period due to lack of summer flows in this section of creek. The addition of up to 50 feet of concrete and rip rap on the stream channel is not expected to have an effect on aquatic habitat. This concrete will replace buried concrete slabs and riprap, which has limited the establishment of riparian vegetation in that area.
The rock rip-rap will be placed in the natural stream channel a distance of 15 to 20 feet above the upstream V-weir. This will increase channel roughness slightly but should not adversely affect migratory and resident fish or other aquatic species.

The good quality riparian habitat in the creek upstream of the site will not be affected other than minor limb removal/trimming (see Mitigation Measure #4) from overhanging vegetation along the access route. If limb removal exceeds 15 to 20%, impacts to riparian vegetation will occur. Mitigation measures for all vegetation losses are discussed below. Consistent with project objectives, the project will remove a major migration barrier on Stevens Creek, which will provide a significant beneficial impact. A number of additional partial or total barriers exist on the creek, restricting steelhead movement.

Construction is targeted to occur outside of the normal migration period of sensitive fish species (steelhead). During which the reach of the stream will probably be dry per normal seasonal streamflow patterns and anticipated reservoir management. Additionally, the normal dryback condition from recent summer flow conditions may have precluded resident fish species from establishing temporarily or seasonally significant numbers within the project reach.

In the event there is streamflow in Stevens Creek during the construction period, juvenile steelhead or other native fish attempting to move into the project area after installation of the coffer dam would not be able to do so. Downstream movement would be blocked by the coffer dam and a screened pipe intake, while upstream migration would be blocked by the check dam and sediment control measures installed at the lower end. One of the purposes of creating a dry stream channel is to eliminate movement of aquatic species into the work area. Due to the relatively short construction period and construction during the steelhead non-migration period, this is considered an insignificant impact over a small portion of the creek (~2400 foot reach, including access zone), and should not adversely affect the species. If wetted stream is encountered during construction, preconstruction surveys and consultation with NMFS to execute the fish relocation if trout are involved will be affected. Relocation would be done per permit conditions.

The California red-legged frog (Rana aurora draytonii) has been listed as threatened by the US Fish and Wildlife Service (USFWS). Site assessments and surveys for red-legged frog were conducted by H.T. Harvey and Associates in the project area in 1997. Neither frogs nor suitable habitat were observed in the urbanized reaches of Stevens Creek, including the project area, during these site surveys (H.T. Harvey, 1997). The Harvey report indicates that it is possible that frogs could be washed into lower Stevens Creek from upstream breeding locations. However, red-legged frog is not expected to breed anywhere along lower Stevens Creek including the project site. Therefore, there is little potential that the project could affect this species.

Southwestern pond turtle (Clemmys marmorata pallida) is a federal species of concern (former category 2 candidate species). It is also a state Species of Concern and a CDFG protected species. Pond turtles could also be washed down from upstream breeding sites during storm events on rare occasions, however this species is not expected to breed in the project vicinity.
The deeply incised streambanks, presence of concrete and rip-rap and absence of upland habitat for nests are all limiting factors for pond turtles (H.T. Harvey, 2001; Holland, 1994). Construction will take place when the creek is seasonally dry, thus eliminating suitable habitat for the turtle.

With implementation of Standard District BMPs, which include preconstruction wildlife surveys and appropriate wildlife avoidance or relocation measures, there will be no significant impacts.

As discussed in the Project Description, the District has standard operating procedures to minimize impacts to native aquatic organisms. If dewatering is necessary, native vertebrate aquatic species will be relocated by a qualified fisheries biologist and transported to a suitable upstream or downstream location, per permit conditions. No impacts to sensitive aquatic species are expected from project construction.

Potential foraging and breeding habitat occurs on the site for Cooper's hawk (Accipiter cooperi), a California species of concern. This species has been known to tolerate vehicular noise from highways and urban areas. Large trees, which are typical nesting sites for this species, will not be affected by construction. Further since habitat for this species occurs locally and is regionally abundant, the potential loss of on-site forage habitat is expected to be less than significant (H.T. Harvey, 2001). Potential impacts and mitigation for nesting raptors or other birds are discussed below.

Will the project:

b) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS?

In general riparian zones provide important ecological functions for terrestrial and aquatic species. Direct benefits to fish and wildlife include nesting and forage opportunities, cover from predators, increased stream bank stability, stream habitat complexity, insect food sources for juvenile salmonids and other native fish, and shade for maintaining suitable water temperatures. Shaded riverine aquatic (SRA) cover is particularly important for native fish.

Riparian vegetation along lower Stevens Creek is a mixture of native and non-native trees, shrubs and understory species typical of somewhat altered urbanized habitats. Principal plant communities are cottonwood-willow riparian forest and ruderal (non-native shrubs and grasses). At the project site the woody overstory is dominated by Fremont cottonwood, red willow, and coast live oak, intermixed with non-native locust, black walnut and buckthorn shrubs. Native shrubs such as elderberry and coyote brush also occur in the immediate project area. Ruderal species such as annual grasses and Himalaya berry are common in the forest understory to well upstream, and become more abundant as the slope protection increases and the canopy becomes sparse downstream. Ruderal ground cover, black walnut and Italian buckthorn are present on the west bank just south of the stream gauge. Underlying concrete slabs and rip-rap are inhibiting the establishment of larger riparian vegetation in this area.

Similarly, gunnite and concrete debris have limited vegetation on the east bank to ruderal grasses and a single coyote brush shrub. Further north, areas with concrete bank reinforcement have no vegetation, but several small shrubs and trees have managed to become established in openings within the sacked concrete. These include cottonwood saplings, poison oak, Himalaya berry and Italian ryegrass.

Upstream of the project site, the riparian canopy contains a more consistent native tree component with overhanging cover in some locations that shades 80-90% of the creek. Dominant species upstream include Black cottonwood, non-native black walnut, and red willow. Other trees and shrubs include white alder, buckeye, oak, sycamore (Platanus racemosa), non-native locust, native coyote brush and elderberry shrubs. Vegetation along the edge of the channel in the vicinity of the equipment access route includes cottonwood, willow, black walnut and white alder. Cottonwood, locust, and landscaping (oaks and two ceanothus species) are present where the temporary access road traverses the west bank slope.

Overhead SRA cover is very limited on both sides of the channel. On the west side, low bank walnut, locust and elderberry provide some overhanging branches and shade. Due the relatively sparse foliage, these trees and shrubs provide filtered rather than full shade, There is no SRA cover on the east bank.

Native cottonwoods alder and willow are providing substantial SRA cover immediately south (upstream) of the project site on both sides of the pedestrian bridge. Under cut bank and instream woody debris is lacking at the project site, as well as up and down stream.

Table 1 describes the species to be removed for project construction. This consists of 4 native 4 ~~native~~ and 6~~9~~ non-native trees and shrubs on the east and west banks. It is possible that excavation and concrete placement on the east bank may also impact an 18" coast live oak located at the top of bank but within 5 feet of the existing concrete slope protection. This oak is considered a heritage tree under the City of Mountain View Tree Ordinance. The overhanging oak canopy probably indicates the root zone most likely extends to the edge of the existing concrete. Excavation and damage to more than 15-20% of the root zone could injure and eventually kill the oak. See Mitigation Measure #3.

Non-native riparian trees and native species' landscaping will also have to be removed for construction of the temporary equipment access road to be graded from Central Avenue to the stream channel. Trees and shrubs removed include three black locusts (included in Table 1~~2~~) as well as the following landscaping plants; coast live oak, valley oak (neither of which was grown from watershed specific genetic stock) and ceanothus. These are located at the top of the berm near Central Ave. See Appendix C. Black cottonwoods on the south edge of the access road may need to have some limbs trimmed. Along the stream channel, red willow above the pedestrian bridge and cottonwood below the bridge (on the west bank) may need to have branches trimmed to allow large equipment to pass. Only overhanging limbs that block equipment would be trimmed. All trimming/limb removal would be done in accordance with Mitigation Measure #4. Removal of up to 20% of overhanging branches will cause a short term loss of SRA cover, but resprouting should re-establish the cover within 3 to 4 years. Removal of additional limbs could injure and eventually kill the tree(s). No trimming or limb removal will be done unless reviewed and recommended by a certified arborist.

Construction within the stream channel and stream banks and impacts to riparian vegetation fall within the regulatory jurisdiction of the California Department of Fish and Game and will require a Streambed Alteration (1601) permit from that agency.

Mitigation for the loss for species, due to project construction, by replanting in other areas (upstream mitigation site) will provide equivalent or better functioning habitat than what is lost. Watershed specific genetic material will be used and plant species and spacing will be done to match and blend in with the surrounding existing (undisturbed) native riparian plant community. Therefore there are no significant impacts.

Although much of the riparian habitat on Santa Clara Valley streams has been substantially degraded, riparian habitat along substantial sections of Stevens Creek, including the reach just south of the project site, is relatively intact and provides fairly high quality wildlife habitat. Urban encroachment at the top of bank and presence of exotic species do limit wildlife values somewhat, but dense vegetation on streambanks provides cover and foraging habitat for a wide variety of mammals, amphibians, reptiles and birds. Common vertebrate species encountered are identified in H.T. Harvey (2001).

Several species of raptors (hawks, owls, kestrel) could nest in taller riparian vegetation on and adjacent to the project area. These species include Cooper's hawk, red-shouldered and red-tailed hawks, American kestrel and barn owl. Raptors and other birds and there nests are protected under the federal Migratory Bird Treaty Act and the state Fish and Game Code. Tree removal or trimming and construction activities could lead to destruction of nests and abandonment of nest or nestlings, and this may constitute a significant impact (H.T. Harvey, 2001). The District's Nesting Bird Guidelines (Appendix D) address survey protocol for nesting birds and appropriate avoidance or protection measures.

There are no other natural communities identified as sensitive within the project vicinity. Fish and aquatic issues are discussed above and wetlands discussed below.

**Mitigation Measures**

1) To mitigate for the loss of native and non-native trees and shrubs on the east and west bank (see Table 1~~2~~), native riparian trees and shrubs (cuttings, contract grown watershed specific plants or direct seeding) will be planted on the east bank slope mitigation site just south of the pedestrian bridge. This is an area largely devoid of riparian vegetation except for non-native grasses and Himalaya berry. A revegetation area of approximately 60 feet (along channel) by 25 feet exists on the lower bank slope, and an area of 100 by 40 on the upper stream bank. After removal of the Himalaya berry, species such as cottonwood, willow, blackberry, and wild rose will be planted on the lower bank. Mid and high bank species will include oak, buckeye, laurel, cottonwood, elderberry, and native shrubs and groundcover. Due to the presence of an ad-hoc BMX (bicycle) course in this area, vegetation plantings may need to be fenced temporarily during the establishment period. Plants will be installed to meet the mitigation ratio of 3:1 for native and 1:1 for non-native plant losses. Trees will be planted in an adequate fashion, with native watershed specific riparian species, and at appropriate density (or spacing), similar to the undisturbed upstream riparian area. ~~A detailed revegetation plan will be prepared by District staff prior to installation~~In lieu of a formal revegetation plan, plant locations will be flagged by District staff and inspected upon installation per mitigation measure 1, to be included with the construction plans and

specifications. It will include oversight by a revegetation specialist given during installation of plant material.

2) Revegetaton in the project impact areas will also occur. The temporary access road will be regraded and replanted with landscape plantings lost at the top of the berm, and native riparian plants in the mid and low bank areas (See Appendix C). The area between the top of the proposed concrete and the chain link fence separating the pedestrian path on the west bank will be revegetated with native trees and shrubs such as oak, buckeye, bay-laurel, and elderberry. Detailed planting plans for these areas will be prepared by District staff with oversight by a revegetation specialist during installation

   Plantings will be installed with Dri-Water (time release watering product), per product specifications with tube and cap for each plant/cutting. Each cutting shall have between 2-3 units of gel (with tube and cap) placed with it during installation. The Contractor shall inspect time-release watering units. Dri-Water must be replaced when the volume of the unit is at 20% full; refill gel unit will be installed and watered according to manufacturer's specifications. Cap shall be replaced on the tube without contaminating the gel.

   ~~a)~~Plants shall be hand watered thoroughly to a minimum of 6 inches below the deepest root fringe to activate the gel and revive the plants. Contractor shall submit an up-to-date record of all watering and time-release watering activities, including the quantity and location of units replaced. Time release water gel (Dri-Water) shall be monitored on a monthly basis through the first year following planting.

   Monitoring protocol will provide for a 2 year inspection-maintenance period for all revegetation plantings, including 80% survival rate criteria. Plant installation shall be done during November and December to ensure the best probability for survival.

3) A licensed arborist from the American Society of Consulting Arborists will review construction plans for soil excavation and concrete placement in the vicinity of the heritage oak on the west streambank. Recommendations of the arborist will be incorporated into construction plans and specifications. If the tree cannot be saved, or dies within 2 years following construction, due to the direct result of that prior disturbance, mitigation at a 3:1 ratio will be done. These trees (contract grown from watershed plant material) would be installed in the upper slope mitigation area which is located to the south of the pedestrian bridge.

   Roots cut that are 2 inches or greater in diameter which must be cut or are damaged during construction operations at any time during the contract period shall be immediately saw cut under direction of the certified arborist into sound wood evenly at right angles to the longitudinal axis of the root, and shall be covered with wet burlap and be maintained wet until recovered with soil.

4) Existing trees and shrubs which are not shown to be removed as part of the project shall be protected from damage by the Contractor's operations. The contractor shall provide a

certified arborist (see above) to direct clearing, grubbing, site preparation, tree trimming or limb removal, and to protect from damage any subgrade irrigation installation belonging to either the District, City of Mountain View, or other property owners. The project engineer may call work to a halt if the arborist is not on site, and no claims for delay nor requests for extension will be granted to the Contractor as a result.

5) A licensed arborist from the American Society of Consulting Arborists will review construction plans for vehicle ingress and egress to the site and provide route restrictions, and mulching guidelines. Recommendations of the arborist will be incorporated into construction plans and specifications.

   Existing trees and~~,~~shrubs which are not shown to be removed as part of the project shall be protected from damage by the Contractor's operations. The contractor shall provide a certified arborist (see above) to direct clearing, grubbing, site preparation, tree trimming or limb removal, and to protect from damage any subgrade irrigation installation belonging to either District, City of Mountain View, or other property owners. The project engineer may call work to a halt if the arborist is not on site, and no claims for delay nor requests for extension will be granted to the Contractor as a result.

   All pruning of roots or branches will be done by certified tree works under direction of the arborist according to standard tree pruning guidelines. Spikes shall not be used for climbing live trees to remain. Split and torn branches shall not be left at any location where the Contractor performs trimming operations. Clean cuts shall be made outside the branch ridge or collar, flush cuts are prohibited. No tree wood~~uld~~ paint shall be applied.

   Contractor shall notify engineer and arborist immediately if any woody plants are ~~material located either inside or outside the right of way, is~~ damaged above or below ground by his/her operations. If damage requires removal of plant, then the Contractor shall remove it at his/her own expense and forfeit from payment an amount equal to the value of the plant or replacement material.

   Roots zones of trees to remain shall be protected by 6 inches of either mulch or pea gravel. This material will be removed upon completion of construction. The Engineer, arborist and Contractor will work together to place orange plastic protective fencing to delineate temporary road route and protection limits. There will be no personnel, material or equipment allowed within the Tree Protection Zone. Shrubs do not require fencing.

6) Preconstruction surveys for nesting raptors and other nesting birds shall be conducted by a qualified wildlife biologist to ensure that no nests will be disturbed during project construction. This survey will be conducted in accordance with the District's Nesting Bird Guidelines (Appendix D.)

With the implementation of the above mitigation measures and Standard District BMPs the project will not lead to fragmentation of habitat, temporary loss of habitat or loss of a heritage tree. Thus, the project will not have any significant impacts.

Will the project:

c) have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means?

No wetlands were identified in the project area or immediately upstream or downstream of the project site. Emergent wetland vegetation (cattail, pondweed, etc.) is absent in this section of Stevens Creek due to the steep banks, sandy substrate, presence of concrete and sacked concrete, constricted nature of the watercourse, and lack of any backwater areas. Construction within the lower 3 feet of bank slope and within the stream channel are within jurisdictional ordinary high water, and will require a permit from the US Army Corps of Engineers, and water quality certification from the California Regional Water Quality Control Board.

~~b)~~Will the project:

d) interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project will not affect steelhead migration during construction, as discussed above in Section 4.4(a). The major project objective is to remove stream barriers that are inhibiting upstream steelhead migration, also discussed in Section 4.4(a). Other resident fish species known from Stevens Creek include native species: Sacramento sucker, Sacramento pikeminnow, California roach, hitch, and threespine stickleback. Introduced species include goldfish, carp, channel catfish, green sunfish and mosquito fish (Appendix B). Although unlikely due to summer dryback conditions, native resident fish species, if found, would also be moved out of the construction area and precluded from re-entering by intake screens and sediment control structures. No impacts are expected due to the relatively limited project construction schedule and short stream reach affected.

The project will reduce mammal, amphibian and reptile movements in the immediate project vicinity during construction, but should not affect longer range movement of species. Due to the limited construction timespan and small area affected, this will not have a significant adverse effect on these species during the construction period. Other than those species discussed above, no other sensitive wildlife species have been documented in the area. Potential impacts to fish and wildlife from the project are considered less than significant.

~~c)~~Will the project:

e) conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City of Mountain View has a Heritage Tree Removal Ordinance that protects heritage trees on private property. The ordinance requires private property owners to get a permit to remove oak, redwood or cedar trees greater than 12" in circumference~~diameter~~, or any other tree greater than 48" in circumference~~-diameter.~~ Although the District as a separate public entity does not need to obtain a permit, it intends to follow the intent of the Mountain View ordinance by following Mitigation Measure #3 above.

~~d)~~Will the project:
f)_conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?

There are no known state, regional or federal HCP's or species' recovery plans for special status species on this portion of Stevens Creek. The District is presently preparing a District-wide HCP on a number of listed species, including those in the Stevens Creek watershed. The City of Mountain View does have a stream protection policy in the Environmental Management Chapter of their General Plan that seeks to preserve and protect the diversity of biological resources along creeks within the City. Although the project will permanently remove native and non-native streambank vegetation on a small portion of Stevens Creek, successful accomplishment of the biological mitigation measures above shall insure the project is consistent with the City's General Plan.

## 4.5 CULTURAL RESOURCES

Will the project cause
a) substantial adverse change in the significance of a historical resource,
b) a substantial adverse change in the significance of an archaeological resource,
c) directly or indirectly destroy a unique paleontological resource or geological feature or
d) disturb human remains?

There are no known paleontologic or geologic resources within the Stevens Creek channel. A cultural resources investigation was conducted by Archaeological Resource Management (2001) to determine the possible presence of archaeological or historical resources at the project site or immediate vicinity. The archival search revealed the presence of two historic sites within a ½ mile radius of the project site, but not within or in close proximity to the construction site. The archival search and surface field reconnaissance indicated absence of archaeological resources. The cultural resources report concluded there was little likelihood the project would affect cultural resources. However, if during construction there is any evidence in underlying native soils of archaeological resources or artifacts (bone, shell, ash, rock fragment), all work will be halted and the District will consult with an experienced Archaeologist to develop a plan to recover or protect the resource. This is a District standard operating best management practice (BMP). The Archaeological Resource Management report is available for review in SCVWD offices.

## 4.6 GEOLOGIC HAZARDS

Would the project expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving:

a) fault rupture,
b) strong seismic ground shaking,
c) seismic-related ground failure, including liquefaction or
d) landslides?

The project does not involve the construction of human-occupied structures, or exposure of persons to seismic hazards or landslides.

Would the project:

e) result in substantial erosion or loss of topsoil?

Removal of the concrete and sacked concrete rubble will expose the underlying channel bottom and bankslopes to scour and erosion. However, because construction is scheduled during the summer dry season when streamflows are low or absent and no precipitation is expected, the erosion hazard is not significant. Immediately after construction activities within the stream channel ~~,~~and along the area where the temporary access road will be built and then removed,the District's contractor will install an erosion control blanket, reseed with native grasses, and completely cover all exposed slope surfaces including temporary access road.. During mid-fall, the slopes will be revegetated with native plant species that are expected to provide full bank slope coverage when the erosion control blankets biodegrade in 2-3 years.

Other construction areas will be covered with concrete, rip-rap or sacked concrete. Therefore, with the currently planned project and erosion control measures, there should be no erosion occurring from the project.

Would the project be located on:

f) a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse or
g) expansive soils?

The project will replace and extend hard bank slope protection that will prevent geologic hazards such as lateral spreading, liquefaction or surficial landsliding that can affect natural bank slopes. The project does not involve construction of inhabited structures that could fail, and chances are remote that persons would be in lower areas of the river channel that would be exposed to these hazards, should an earthquake or other geologic event occur.

Would the project:

h) have soils incapable of adequately supporting the use of septic tanks or alternative disposal systems where sewers are not available for wastewater disposal?

Sewers are available in this area. The project does not involve construction of facilities requiring wastewater disposal.

## 4.7 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a) create a significant public hazard through routine transport, use or disposal of hazardous materials,

b) create a significant hazard involving accidental release of hazardous materials into the environment,

c) emit hazardous materials within ¼ mile of a school or

d) be located on a hazardous materials site?

The rip-rap and concrete debris that will be transported from the site are not considered hazardous materials. Handling of fuel, other equipment fluids and other types of hazardous materials associated with the construction equipment operated at the site will be subject to District standard operating BMP's listed in Appendix A. No impacts from hazardous materials are expected from this project.

Wet or uncured concrete is considered a hazardous material in stream channels as concrete is highly alkaline and can impair water quality of receiving waters, adversely affecting downstream aquatic organisms. The District has a BMP dealing with concrete use near waterways (#1.11). Adherence to this BMP shall eliminate any hazard from concrete use in the Stevens Creek channel.

~~e)~~Would the project:

e-f) result in a safety hazard due to location near an airport or private airstrip?

The project site is about 1.8 miles southwest of Moffett Field, but does not lie within the flight path for aircraft taking off or landing at the airport. Furthermore, the project does not involve construction or creation of a facility that would result in additional public use or subject the public to additional hazards from aircraft.

Would the project:

~~f)~~g) impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project will be confined to the river channel, and construction on stream banks will be done from the channel. The project will not affect use of the recreational path, which is also used as a maintenance access road but also serves as a emergency vehicle access to evacuate persons when necessary. The City of Mountain View Fire Department requested a minimum 10 foot clearance for emergency vehicles, similar to what exists on the pedestrian-bicycle path (B. Tan, personal communication, 2001). Therefore, contract specifications will require the contractor to maintain an 11-foot opening north of the construction staging area on Central Avenue for emergency vehicle access to the maintenance road/trail. This opening will encompass the existing roadway and sidewalk. The project will not affect emergency response or evacuation plans.

Would the project:

~~g)~~h) expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project site is located in an urban setting without nearby wildlands. The project setting, the type of project proposed and equipment to be used are unlikely to cause fire hazards.

## 4.8 HYDROLOGY AND WATER QUALITY

Would the project:

a) violate any water quality standards or waste discharge requirements or otherwise degrade water quality?

The project contractor will implement District Best Management Practices to prevent sediment from bank slopes, channel bottom and temporary access road to be carried downstream during construction. During construction, water from Stevens Creek and groundwater encountered during excavation will route around the construction zone. The District also has designated provisions for site cleanup at the end of construction (See Project Description) which will be incorporated into construction contract documents. Additional BMP's will prevent any accidental spills of hazardous materials from construction equipment. These BMP's are identified in Appendix A.

Would the project :

b) substantially deplete groundwater supplies or interfere substantially with groundwater recharge so that there would be a net deficit in aquifer volume or a lowering of the local groundwater table?

Replacement of existing concrete and sacked concrete with new concrete lining will not affect groundwater supply or reduce groundwater recharge as impervious conditions exist in both instances. Groundwater recharge will be reduced slightly from the additional concrete channel lining that is planned upstream of the existing stream gauge weir. Existing bank slopes in these areas are underlain with concrete debris, so the change in infiltration characteristics should not be significant. This concrete fill will cover 1125 square feet in the channel, and 1800 square feet on the bank slopes. These areas are extremely small compared with the entire Stevens Creek channel; groundwater infiltration losses will be insignificant.

Would the project substantially alter existing drainage patterns, including alteration of the course of a stream or river, in a manner which would result in:

c) substantial erosion or siltation on or off site,
d) increase in surface runoff causing flooding or
e) create runoff which would exceed the capacity of existing or planned storm water drainage?

It is likely that this reach of Stevens Creek will be dry during the construction period due to normal District water supply operations. However, if the stream is wet and a coffer dam is required, drainage patterns will be altered during the 4 ½ month in-stream construction period by water diversion around the construction site. This is not considered significant due to the relatively short project timeframe and the limited stream reach affected. BMPs will be implemented to mitigate water quality impacts if a stream diversion is necessary. Project scheduling during the summer-fall low flow period will avoid drainage or flood impacts that could occur during higher flows.

This section of Stevens Creek is somewhat constricted due to the narrowed channel width under the Highway 85 overpass and bridge supports within the creek. This reach of Stevens Creek must pass flows that could exceed 8000 cfs during a 100-year runoff event. Concrete reinforcement of the channel bottom and stream bank will aid the passage of high velocity flows and reduce the potential for localized scour and debris jams. The concrete slope protection has been designed with drainage openings to allow natural seepage and reduce pore water pressure behind the concrete. Existing drain lines into the channel will be retained, and local runoff and drainage patterns will not be affected by the project after construction.

Would the project:

f) place housing within a 100-year floodplain or
g) place structures within a 100-year flood hazard area that would impede or redirect flood flows?

Construction of housing or permanent occupancy structures is not part of the proposed project. Temporary structures such as construction debris, the coffer dam, pumps, pipe and sediment control facilities will be removed before the onset of winter rains. The proposed wiers are 4 feet high, and will not be large enough to cause a significant obstruction or redirect flood flows. The upstream V shape will concentrate flows toward the center of the weir, maintaining the scour pools located below each weir. The channel and bank lining does not change the channel cross-section, will not alter/impede high volume flows through this reach of Stevens Creek.

Will the project:

h) expose persons or structures to levee or dam failure or inundation by seiche, tsunami or mudflow?

The project site is not located in an area that would expose people to mudflow or tsunami hazards, and the project will not affect or alter any existing hazard due to failure of an upstream dam or upstream seiche.

## 4.9 LAND USE AND PLANNING

Will the project:

a) physically divide an established community?

The project will take place within the confines of the banks and channel of Stevens Creek. During construction, pedestrians and bicyclists will be able to use existing surface streets and the pedestrian and walkway without interference from construction equipment or activities. Construction staging will occur at the end of Central Avenue, but a cordoned area north of the staging will be provided to allow public and emergency vehicle access to the path and bridge. The project after construction will not result in any structure or facility that will disrupt or divide the residential community or public use of adjacent trails and nearby park facilities. Although intermittent closure (for a few hours per day) during work such as, but not limited to, concrete removal may be needed to ensure public safety. Signage would be posted in advance to notify trail users and flaggers will be present to direct trail users away from unsafe locations.

Will the project:

b) conflict with any land use plan, policy or regulation of an agency with jurisdiction over the project, or
c) conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?

Although the City of Mountain View does not have permit authority over the project, the project is consistent with applicable plans and policies. The City has policies that protect biological resources present along Stevens Creek. The "tree-dominated" riparian habitat is designated as important plant and wildlife habitat. The project will result in the loss of native and non-native riparian trees and shrubs (See Biology Section 4.4(c) above). These impacts will be mitigated with the reestablishment of native riparian species in a mitigation area above the pedestrian bridge. The temporary access road will also remove oaks and ceanothus planted by the City as landscaping near Central Avenue. These will be mitigated by replanting the same species in the same area after construction. The City also has a Heritage Tree Ordinance that prohibits the removal of heritage trees without a permit. From existing plans it is difficult to determine if the single heritage tree in the construction zone probably will be adversely affected by this project. Therefore, a mitigation measure is proposed to insure project impacts are insignificant (See Biology Section 4.4(c) above).

Other permitting agencies with jurisdiction over this project (Section 1.5) will not issue permits unless the project is consistent each agency's applicable policies and regulations. Preliminary conversations with staff at these agencies has revealed no inconsistencies. As indicated in Section 4.4(f) above, there are no known conflicts with an HCP or NCCP.

## 4.10 MINERAL RESOURCES

Would the project:

a) result in the loss of availability of a known mineral resource; or
b) result in the loss of availability of a locally-important mineral resource recovery site designated on a general plan?

The project site is not located in an area having mineral resources or with a mineral resource recovery designation.

## 4.11 NOISE

Would the project:

a) result in exposure of people to severe noise levels, or
b) ground borne vibration?

Proposed hours of work for this project are 7:30 AM to 6 PM in accordance with contract documents. The site experiences existing background noise from Highway 85. Ambient daytime noise levels will increase due to use of a bulldozer, loader concrete pump trucks, haul trucks and hand power equipment during project construction. However, noise increases from this equipment is not expected to be severe, and would occur during daytime hours only. Residences within the immediate project vicinity will experience some increase in daytime noise levels. Standard District contract specifications indicate that project noise levels outside the project construction area shall not exceed 86 dBA during working hours or 60 dBA during nonworking hours (i.e. from water diversion pumps), due to project noise emissions. In addition, District standards also state that no individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet. District BMP's relating to noise are also in place to ensure the project will comply with the City of Mountain View noise standards. Furthermore, the District has agreed that if Mountain View receives noise complaints from area residents, the District will work with the City and neighbors to determine appropriate construction scheduling and work hours. There will be no permanent increase in ambient noise levels, upon completion of constriction, when the project is finished. In addition, standard District BMPs and contract specifications will be implemented. Thus, there will be no significant impacts.

Removal of concrete with a jackhammer will cause some ground borne vibration, but this is expected to be confined to the stream channel project area and should not adversely affect area residents. Other components of the construction will not cause vibration.

Would the project:

c) cause a substantial permanent increase in ambient noise levels in the project vicinity; or
d) a substantial temporary or periodic increase in ambient noise levels?

The project will not result in a permanent increase in noise levels. There will be temporary increases in noise levels associated with the use of heavy equipment. _Noise levels will vary throughout the day depending on the type of equipment in use at any particular time. Land uses in the immediate project vicinity are residential; there are approximately 88 units adjacent to the project site. Some residents living close to the project site who are home during daytime hours may be inconvenienced by noise increases. As required by the District's standard operating BMP, all equipment will be equipped with noise control devices and mufflers, and excessive idling of trucks or equipment will be prohibited.

Would the project:

e) expose people to excessive noise levels associated with a location near an airport, or a private airstrip?

The project site is within 2 miles of Moffett Field but is not within the airport takeoff or landing approach patterns. Furthermore the project will not result in occupancy of structures that would expose additional people to airport noise. There are no private airstrips in the project vicinity.

## 4.12 POPULATION AND HOUSING

Would the project:

a) induce substantial population growth either directly or indirectly?

The project will not result in construction of housing or facilities that will induce population growth. Due to the small size and short-term nature of the project, it is not expected to induce new construction workers to relocate to the area.

Would the project

b) displace substantial numbers of existing housing, or
c) displace substantial numbers of people, necessitating the construction of housing elsewhere?

Due to its location in a river channel, the project will not displace people or housing.

## 4.13 PUBLIC SERVICES

Would the project result in physical impacts associated with the provision of new public services in the following areas:

a) fire protection
b) police protection
c) schools
d) parks, or
e) other public facilities?

The stream channel project will not result in construction of housing or other permanent facilities that could generate population growth and a need for public services. The work crew could conceivably use some of these services, but this use would not create a demand for new service facilities. Therefore, the project will not have an effect on fire, police, schools, parks or other public facilities. It is possible that some people may avoid use of the recreational trail in the immediate project vicinity due to noise and other short term construction impacts from the channel below. However, public access to the trail will not be affected by the project. Public avoidance of the trail is not considered a significant impact since it may only occur during the short duration of the construction period.

## 4.14 RECREATION

Would the project:
   a) increase the use of existing neighborhood and regional parks, or
   b) require expansion of recreational facilities?

The project will not result in a land use that would generate the need for recreation facilities, or expanded use of existing facilities. As stated above use of the recreational trail will not be affected by the project. There is no plan to close the trail at any time during construction.

## 4.15 TRANSPORTATION/CIRCULATION

Would the project:
   a) result in increased vehicle or traffic congestion, or
   b) exceed the established level of service standards?

The project could result in a minor increase in construction worker trips to and from the site during peak A.M and P.M commute times. The maximum expected workforce is 8-10 individuals (G. Lau, personal communication 2001). Compared with the existing commute, the number of workers coming to and from the site is insignificant. The project would also generate truck trips to/from the District's Brokaw maintenance yard and landfill sites. Anticipated truck trips are 4-5 per day over a five to seven day period during removal of concrete and sacked concrete bags. Compared with total vehicle traffic on area roadways, these increases should not result in increased congestion and are considered insignificant. Truck trips would take place during off-peak commute hours and would therefore not cause increased congestion nor would they have a significant effect on the peak commute. With the implementation of standard District BMPs and truck trips limited to off-peak commute hours, the project will not have a significant effect on vehicle traffic.

Would the project:
   c) result in a change in air traffic patterns?

The project will have no effect on air traffic patterns.

Would the project:
   d) substantially increase traffic hazards due to design features, or
   e) result in inadequate emergency access?

The project will not require any changes to roadway or intersection design or result in incompatible uses. Public access will still be available on existing streets and into the trail/service road. The construction staging area will be fenced, and signs installed to direct recreational trail users to the west bank trail and pedestrian bridge. Emergency access will not be affected, and sufficient distance will be allowed between the construction staging area and edge of pavement at the end of Central Ave. for emergency vehicles and city maintenance staff to access the recreational trail. The staging area will be located at the far easterly end of Central

Avenue within the cul-de-sac, and will not block driveways providing access to the town homes at 177-187 Central (south side) or town home complex at 182-198 Central on the north side. Signing and fencing will be installed as needed, to protect pedestrians, onlookers or other recreationalists from hazards in the construction zone.

Would the project:
f) result in inadequate parking capacity?

Residents in the town homes near the end of Central Avenue have off-street parking within their respective complexes. Construction staging at the Central Ave. cul-de-sac will appropriate 8 to 10 parking spaces that could be used by residential visitors or recreationalists using the Stevens Creek trail. However, in 6-7 site visits, only two vehicles were noted using parking in this area, and sufficient on-street parking is available west of the proposed staging area on Central Avenue.

Would the project:
g) conflict with adopted plans, policies or programs supporting alternative transportation?

The project will not impact alternative transportation facilities (bus turnout, bike racks or bike path). It is not generating any permanent increases in vehicle trips or traffic congestion, requiring consideration of alternative transportation modes.

## 4.16 UTILITIES AND SERVICE SYSTEMS

Would the project:
a) exceed wastewater treatment requirements,
b) require construction of new water or wastewater treatment facilities,
c) require construction of new storm water drainage facilities,
d) have sufficient water supplies to serve the project,
e) result in a determination of inadequate wastewater treatment capacity to serve project demand,
f) be served by a landfill with sufficient permitted capacity, or
g) comply with federal, state and local statutes and regulations related to solid waste?

The project involves construction in a stream channel to restore fish passage and will not result in a land use change that will require the need for new utilities or service systems. Electrical service to the stream gauge will remain unchanged. Storm water drainage into the new concrete channel will be substantially the same as the pre-project condition. The concrete debris will be reused off site to the maximum extent possible, with landfill disposal considered (for concrete) if necessary.

## 4.17 MANDATORY FINDINGS OF SIGNIFICANCE

Does the project:

a) have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California prehistory or history?

As indicated in subsection 4.4, there will be no impacts on listed fish, plants or animals or plant/animal communities. The major purpose of the project is to eliminate a barrier that is affecting migration of a federally listed Threatened fish species, steelhead trout. As a stream restoration project, it will improve rather than degrade the quality of the environment by increasing fish habitat values. The replacement of native and non-native vegetation with native riparian vegetation within a larger area presently devoid of native riparian habitat should improve vegetation and wildlife habitat values on Stevens Creek. The project should have no effect on cultural resources.

Does the project:

b) have impacts that are individually limited, but cumulatively considerable?

The proposed project will add concrete and rip-rap to the stream bed and banks approximately a 50 foot area south of the existing concrete hardscape, and extend concrete facing to the top of each streambank. Combined with the sacked concrete under the Highway 85 bridge, the additional hard structure will reduce the potential for bed and bank scour, and undermining of the concrete structure, but will also increase velocities slightly during high flow events. Increased flow velocities are projected to be ~4% to 6% (G. Lau, personal communication, 2001). These increased velocities are not substantial enough to further impact migrating fish (J. Abel, personal communication, 2001); however up-migrating adult steelhead would benefit from removal of additional barriers on the Stevens Creek system. In particular, removal of the barrier just downstream of the Highway 85 bridge, and removal or modification of the sack concrete under the bridge could be accomplished with a future Highway 85 modifications and would further facilitate passage through the project area (J. Abel, personal communication, 2001).Removal of other barriers on Stevens Creek over the next several years may improve upstream access to better spawning sites for steelhead, and should be high priority for District implementation.

There is no other work proposed on or near Stevens Creek in the project vicinity.

Mitigation for the loss for species, due to project construction, by replanting in other areas (upstream mitigation site) will provide equivalent or better functioning habitat than what is lost. Watershed specific genetic material will be used and plant species and spacing will be done to match and blend in with the surrounding existing (undisturbed) native riparian plant community. In addition, with the implementation of project mitigation measures and Standard District BMPs the project will not lead to fragmentation of habitat, temporary loss of habitat or loss of a heritage tree. The BMPs are designed to avoid and minimize environmental impacts and the mitigation and enhancement plantings will provide equivalent coverage for what is lost during construction. Thus, the project will not result in significant cumulative impacts to habitats or species (see subsection 4.4). No other impacts would be cumulatively significant.

Does the project:

c) have environmental impacts which will cause substantial adverse effects on human beings, either directly or indirectly?

The project will not cause significant adverse effects related to aesthetics (4.1), agricultural resources (4.2), air quality (4.3), cultural resources (4.5), geology and soils (4.6), hazards and hazardous materials (4.7), hydrology (4.8), land use (4.9), mineral resources (4.10), noise (4.11), population and housing (4.12), public services (4.13), recreation (4.14), transportation/circulation (4.15), and utilities and service systems (4.16). With implementation of the project mitigation measures, potential biologic impacts from loss of riparian vegetation will not cause adverse impacts to area residents or users of the recreation trail. Substantial adverse effects on human, either direct or indirect, will not occur.

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## 5.1 SANTA CLARA VALLEY WATER DISTRICT REPORT CONTRIBUTORS

Abel, Jae, Fisheries Biologist
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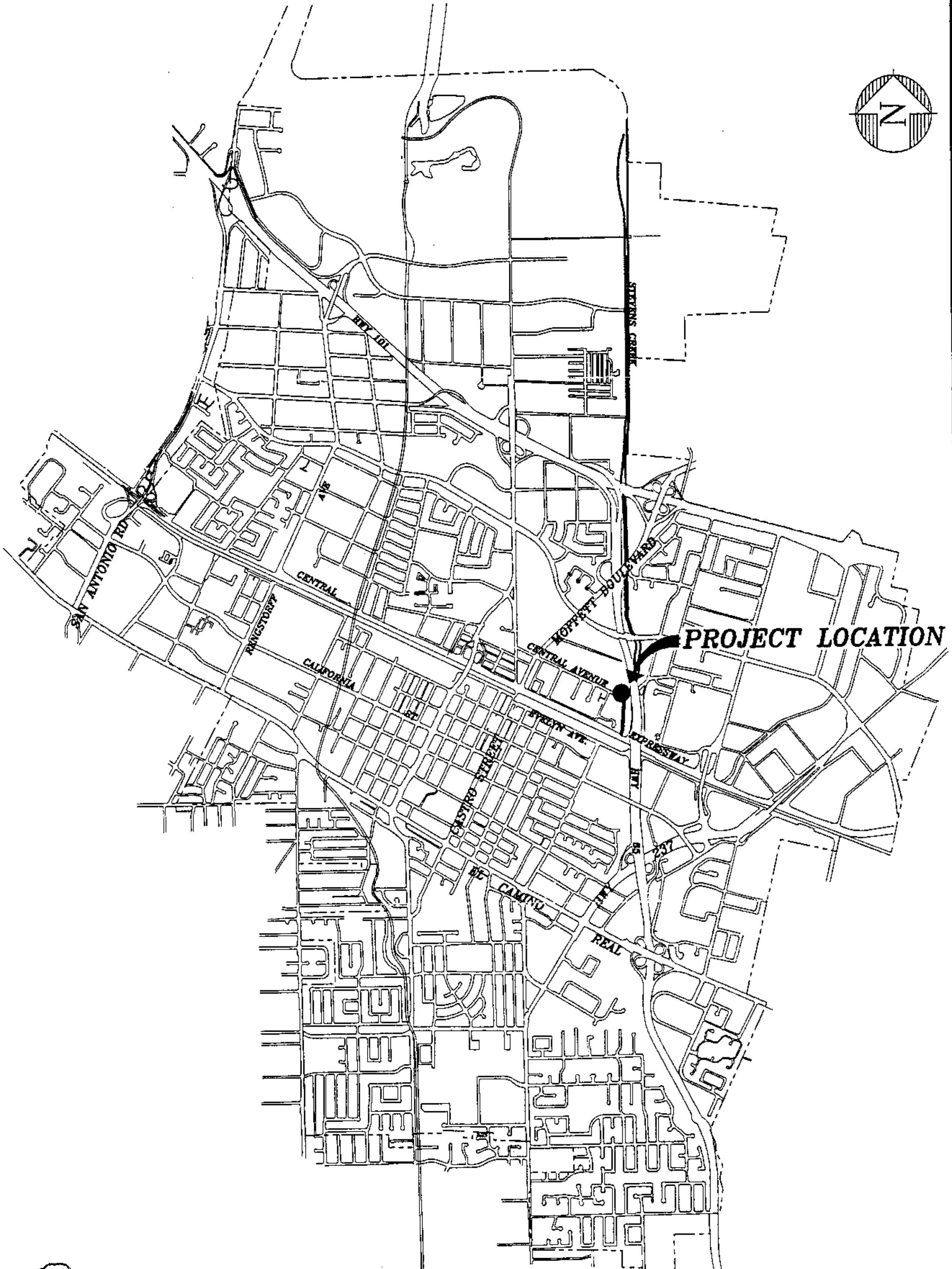
# PROJECT LOCATION MAP



CITY OF MOUNTAIN VIEW

Figure 1

# Stevens Creek Drop Structure Modifications
## (At Streamflow Station #35)

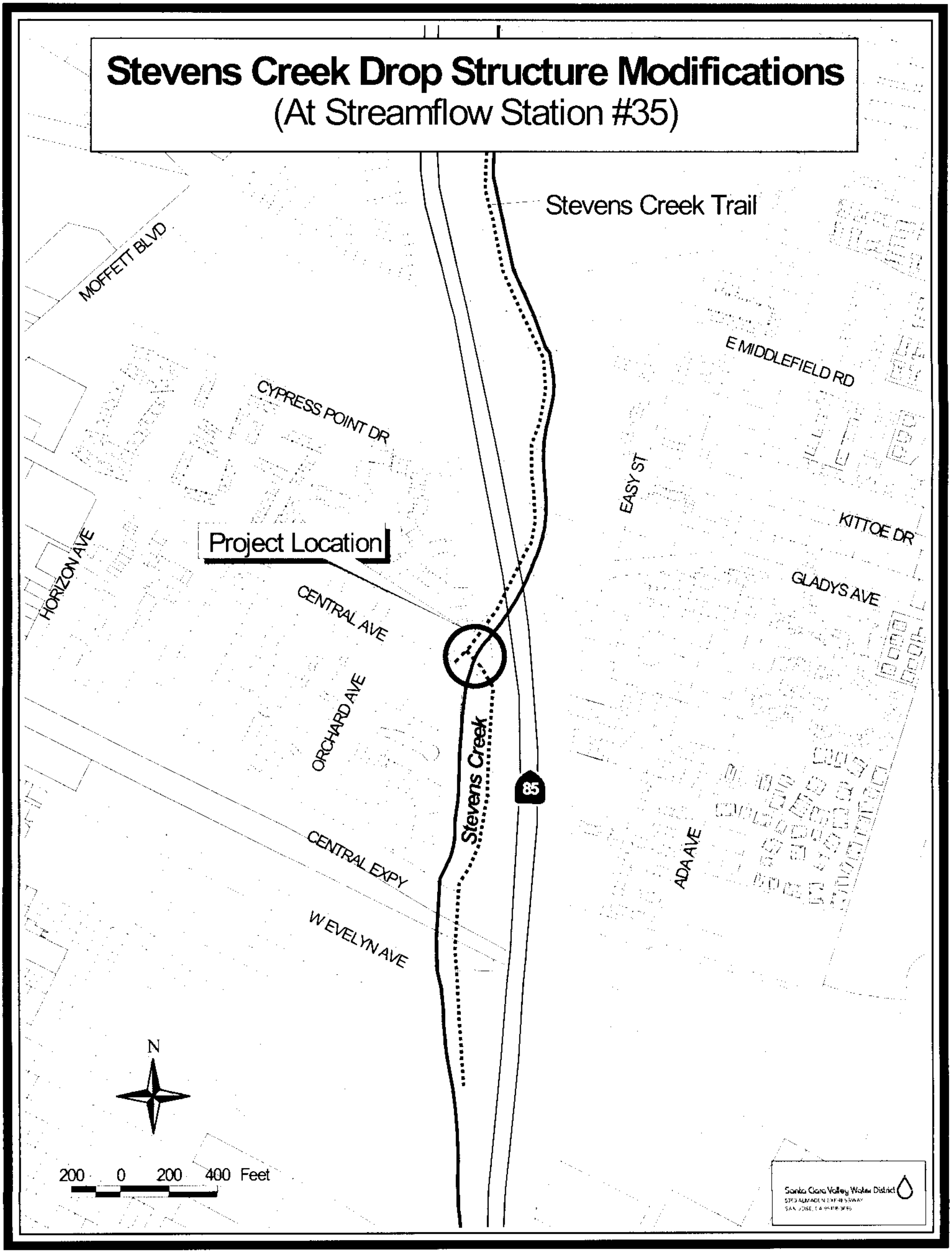
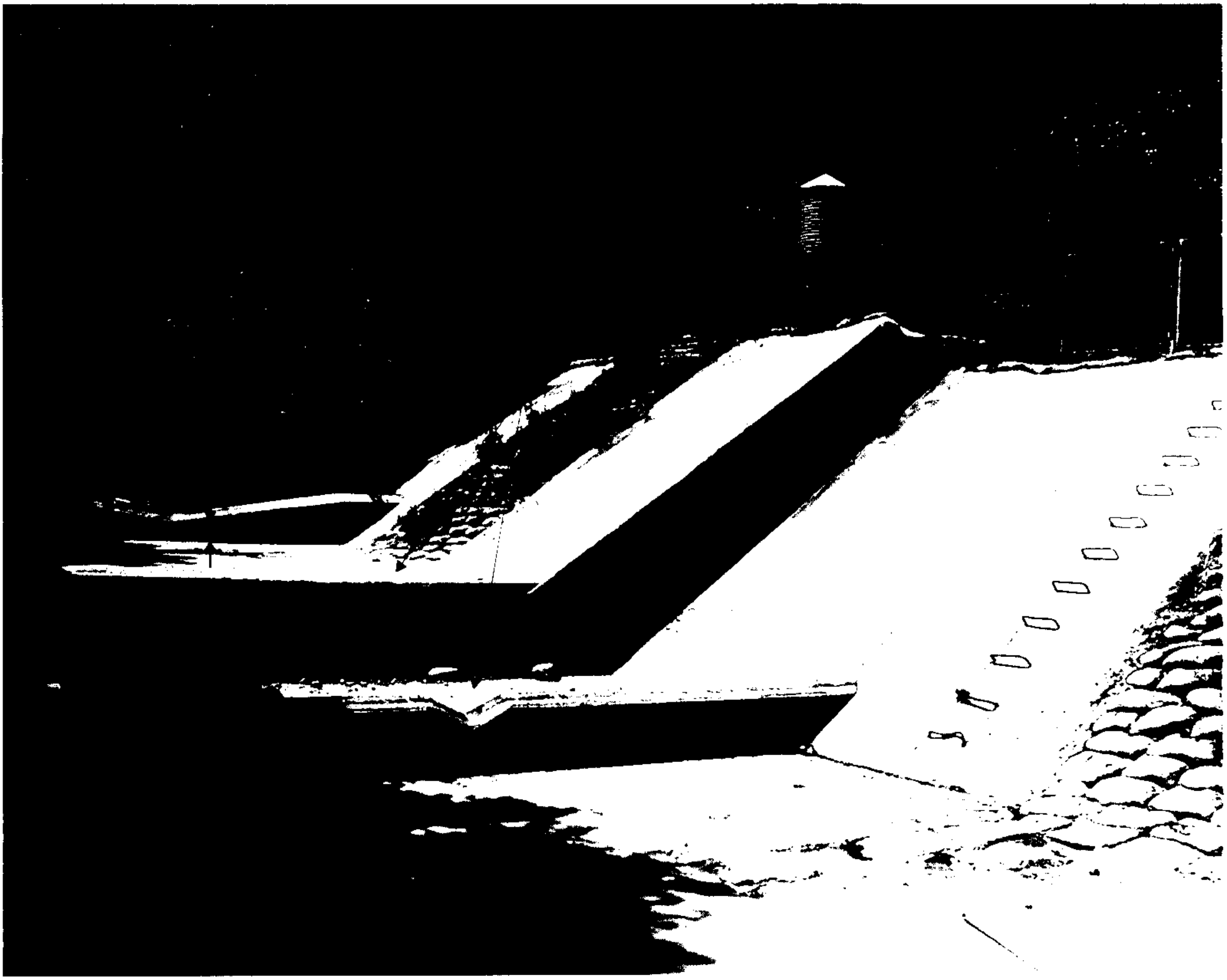


Figure 2



Pic00025-riv-exist facility.jpg

Existing Stevens Creek Drop Structure to be removed by this project and replaced with structure consisting of 5 V-weirs with 9" jumps and 48" deep pools.

Existing structure requires fish to navigate a series of three jumps landing on a concrete slab in 1" to 2" of water each time.

# TABLE

## Table 1
## Vegetation Removed and Mitigation Requirements

| Species | Native (N) or Non-native (O) | Location | Mitigation Ratio | Mitigation Location |
|---|---|---|---|---|
| **Riparian:** | | | | |
| ~~7" multistemmed Walnut (Juglans californiaca va hindsii~~ | ~~O*~~ | ~~West Bank~~ | ~~1:1~~ | ~~East Bank~~ |
| ~~5" multistemmed Walnut~~ | ~~O*~~ | ~~West Bank~~ | ~~1:1~~ | ~~East Bank~~ |
| ~~4" multistemmed Walnut~~ | ~~O*~~ | ~~West Bank~~ | ~~1:1~~ | ~~East Bank~~ |
| 3" Walnut<br>J. Hindsii | O* | West Bank | 1:1 | East Bank |
| 3" Walnut | O | West Bank | 1:1 | East Bank |
| 4" Black Locust (Robinia pseudoacacia) | O | West Bank | 1:1 | East Bank |
| 2" Buckeye (Aesculus Californica) | N | West Bank | 3:1 | East Bank |
| 5" multistemmed Elderberry (Sambucus mexicana) | N | West Bank | 3:1 | East Bank |
| 2" Italian Buckthorn (Rhamnus alaternus) | O | West Bank | 1:1 | East Bank |
| 2" Tree Tobacco (Nicotiana glauca) | O | West Bank | No | -- |
| 3" Red Willow (salix laevigata) | N | West Bank | | East Bank |
| 3" Coyote Brush (Baccharia pilularis) | N | West Bank | No | -- |
| 3" multistemmed Black Locust | O | Access Road | 1:1 | East Bank |
| 4" multistemmed Black Locust | O | Access Road | 1:1 | East Bank |
| 2" Black Locust | O | Access Road | 1:1 | East Bank |
| | | | | |
| **Landscaping:** | | | | |
| 3 Coast Live Oak (Quercus agrifolia) | N | Landscaped Berm | 1:1.÷33 | Landscaped Berm |
| 1 Valley Oak (Quercus lobata) | N | Landscaped Berm | 1:1 | Landscaped Berm |
| 4 Blueblossum (Ceanothus thrysifolorus) | O* | Landscaped Berm | 1:1 | Landscaped Berm |
| 6 Yankee Point Ceanothus (Ceanothus griseus horizontalis) | O | Landscaped Berm | 1:1 | Landscaped Berm |
| | | | | |
| O*: Species native to California but are introduced to Stevens Creek riparian corridor | | | | |

# APPENDICES

# APPENDIX A
# DISTRICT BEST MANAGEMENT PRACTICES

# San Francisco Regional Water Quality Control Board
# Tentative Order
# Appendix A

## Santa Clara Valley Water District

## Stream Maintenance Program
## Implementation of Best Management Practices

December 2001

### Introduction

The District will process all routine stream maintenance activities according to the process and protocols established in Chapter 3 of the Stream Maintenance Program (SMP). The Resource Protection Protocol contained therein includes a step in the annual review process to identify appropriate Best Management Practices (BMPs) for the design and implementation of an activity (see SMP Figure 3-1.) BMPs are methods that protect environmental quality or reduce environmental impacts from stream maintenance activities. In order to be effective, BMPs must be properly selected and implemented, applied consistently, and their effectiveness evaluated onsite to assure that they are meeting the required objective. The District's Geographic Information System (GIS) will be developed and enhanced to facilitate the stream maintenance project environmental review, processing, and implementation process, particularly for determining potential presence of sensitive species.

Not every BMP is designed to be used in every situation. Since BMPs are meant to be specific to particular activities and resources, the selection and implementation of an appropriate set of BMPs for each project is a key element to their effectiveness. Because of variation in District facilities and the tendency of individual site conditions to change over time, conditions under which each BMP must be applied cannot be strictly prescribed. The staff involved in design and implementation of the maintenance activity must retain some flexibility to determine which BMPs should be implemented according to design objectives and site conditions.

Selection, implementation, monitoring, and improvement of BMPs are all part of the program. Following is a brief discussion of how each of these activities will be applied under the Stream Maintenance Program to assure that resource protection goals are met.

### Selection of Best Management Practices

The District will use the most current BMPs when planning or designing routine stream maintenance activities. Work within the Stream Maintenance Program can be divided into two general categories. Regularly scheduled work (most vegetation management, trash pick-up, etc.) is work that occurs in the same place and the same manner with a predictable frequency. Other routine work is not undertaken on a regular annual schedule, but is done as the need arises. This work (sediment removal, bank protection) has a less predictable frequency and location. This work is identified through field surveys, prioritized, and then a work-plan for that particular job is developed. Selection of BMPs will be managed differently for these two types of work.

Selection of BMPs for regularly scheduled work will be done at the beginning of each season (coincides with activity type). Aquatic herbicide application, for example occurs in late summer/early fall. At the beginning of the season, technical staff will review all of the work areas and select appropriate BMPs to respond to site conditions. The BMPs will be incorporated into the work order. If there are questions regarding specific environmental issues, appropriate staff will be consulted and their input will be incorporated.

For work not on a regular schedule, BMP selection is called out in the Resource Protection Protocol. The watershed engineer will, as part of the project design criteria, select BMPs that are appropriate to the particular job and incorporate them into the design package. The BMPs will be called out in the design documents and incorporated into the work order. If there are questions regarding specific environmental issues, appropriate staff will be consulted and their input will be incorporated.

### Implementation of Best Management Practices

Best Management Practices will be implemented by lead staff assigned to a specific project. For most projects this would be the Senior Maintenance Worker. The BMPs will be implemented as they are called out in the work order. If site conditions or other factors require a BMP to be changed or make it no longer relevant to the project, the assigned lead on the job will consult with appropriate staff (watershed engineer, qualified environmental staff, etc.) and get authorization to modify the BMPs. Modifications to BMPs will be noted as an addendum to the work order.

### Monitoring of Best Management Practices

Monitoring of BMPs will be carried out as part of the work and assigned to the lead staff on a particular project as a general rule. Exceptions would be where the individual BMP requires a particular field of expertise to carry out the monitoring (i.e. water quality sampling, fisheries monitoring). In that instance, qualified staff would be included in the work order as a resource for BMP implementation.

### Changes in Best Management Practices

The Best Management Practices section of the Stream Maintenance Program is intended to be a living document and to change over the life of the program. The annual Resource Protection Protocol in Chapter 3 of the Stream Maintenance Program includes a "lessons learned" step to evaluate and improve all aspects of the maintenance program, including the BMPs. As BMPs are used and ways are seen to improve their effectiveness, they will be modified to reflect the changes. As new BMPs are found or technology improves, the program will incorporate them to further protect resources.

### Reporting on Best Management Practices

Reporting on modification to BMPs made as a result of the "lessons learned" process will be done as part of the normal reporting practices called out in the Stream Maintenance Program.

## Supporting Documents

The BMPs are supported by other District documents that provide more specificity for maintenance project design and implementation.

These documents are attached to the SMP:

Appendix C. Nesting Migratory Bird Procedure
Appendix D. Dryback/Fish Relocation Protocol
Appendix E. Programmatic Impact Assessment and Mitigation for Routine Bank Protection Activities

These documents are available from the District:

District Channel Maintenance Guidelines
Bay Area Stormwater Management Agency Association BMPs (2001)

## BMP List

The list of BMPs gives a BMP identification number which is used for reference in the SMP and EIR, followed by a short BMP Title, a summary Description of the measure, and the Activity to which the measure will generally apply. The abbreviation for activity is:

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| SR | Sediment Removal |
| VM | Vegetation Management |
| BP | Bank Protection |
| MM | Minor Maintenance |
| All | All Routine Maintenance |

**1. Water Quality**
**The District shall implement measures to protect water quality, to reduce short-term increases in turbidity, and to maintain the geomorphic integrity of the channels.**

| BMP | Title | Description | Activity |
|---|---|---|---|
| 1.1 | Conduct Work During Low Flow Periods | Work instream shall be performed from the spring to fall months when low to no flows are present in the channels. For minor work activities that will occur in the channel, work will be conducted from the top of the bank if access is available and there are flows in the channel. | All |
| 1.2 | Tidal Work Areas | For tidal areas, a downstream cofferdam is constructed to prevent the work area from being inundated by tidal flows. By isolating the work area from tidal flows, water quality impacts are minimized. Downstream flows continue through the work area and through pipes within the cofferdam.<br>1. Installation of coffer dams will begin at low tide.<br>2. If work can be completed or staged when the work area is not under water, coffer dams will not be necessary.<br>3. Coffer dams in tidal areas can be made from earthen material. If earth is used, the downstream and upstream faces shall be covered by a protected covering (e.g., plastic or fabric) if needed to minimize erosion. | SR |
| 1.3 | Dewater/ Bypass Water at Non-tidal Sites | If water is present at the work site, diversion structures (which can be made of sheet piles, inflatable dams, sand bags, river run gravel, or other similar materials) shall be constructed, as needed, to isolate the work area and avoid or minimize downstream water quality impact. Depending on the channel configuration, water is allowed to either continue flowing downstream or is diverted around the work site in a pipe (pumped or gravity) or open channel.<br>1. All water shall be discharged in a non-erosive manner (e.g., gravel or vegetated bars, on hay bales, on plastic, on concrete, or in storm drains when equipped with filtering devices, etc.).<br>2. Sumps or basins may also be used to collect water, where appropriate (e.g., in channels with low flows).<br>3. Where feasible and appropriate, diversion structures shall be installed on concrete sections of the channels or constructed of materials other than imported earthen fill. Earth fill cannot be used for cofferdams in non-tidal areas.<br>4. In conjunction with diversion structures, pumps or gravity-fed pipe systems are used to de-water sites.<br>5. Depending on the channel configuration, sediment removal may occur within a "live" stream–a stream where the flows are not bypassed around the work site; however, during excavation activities, a berm of sediment is left between the work area and stream flows to minimize water quality impacts.<br>6. In non-tidal channels with anadromous fisheries, diversions shall maintain habitat connectivity and result in no changes in flow quality or quantity from pre-project conditions. | SR<br>BP |

| BMP | Title | Description | Activity |
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| 1.4 | Avoid Erosion When Restoring Flows | All temporary diversion structures shall be removed within 48 hours of completion of work. Flows shall be restored in a manner that minimizes erosion.<br>1. When diversion structures are removed, to the extent practicable, the ponded flows will be directed into the low-flow channel within the work site to minimize downstream water quality impacts.<br>2. Flows shall gradually be restored to the channel to avoid a surge of water that would cause erosion or scouring.<br>3. Passed flows can be slowly reintroduced into the dewatered area by leaving a silt barrier in place to allow water to slow and drop sediment to the extent possible. | SR<br>BP |
| 1.5 | Erosion and Sediment Control Measures | Erosion control methods shall be used as appropriate during all phases of routine maintenance projects to control sediment and minimize water quality impacts. The District shall prevent erosion on steep slopes by using erosion control material according to manufacturer's specifications. Appropriate measures include, but are not limited to, the following:<br>1. Silt Fences<br>2. Straw Bale Barriers<br>3. Brush or Rock Filters<br>4. Storm Drain Inlet Protection<br>5. Sediment Traps<br>6. Sediment Basins<br>7. Erosion Control Blankets and Mats<br>8. Soil Stabilization i.e.: Tackified straw with seed, jute or geotextile blankets, etc.<br><br>The following Bay Area Stormwater Management Agency Association BMPs provide guidance and specifications as to implementation of the erosion control measures described:<br><br>SC-3. Sediment Basins<br>SC-4. Straw or Sand Bag Barriers<br>SC-5. Sediment Traps<br>SC-6. Silt Fences<br>SS-1. Erosion Control Blankets, Mats, and Geotextiles<br>VR-1. Brush or Rock Filters<br>VR-2. Check Dams<br>VR-4b. Temporary Outlet Protection<br>VR-4b. Storm Drain Inlet Protection<br>WD-1. Earth Dike<br>WD-1. Slope Drain<br>WD-3. Temporary Drains and Swales | BP |
| 1.6 | Use of Wheel and Track Mounted Vehicles in Stream Bottoms | District personnel shall use the appropriate equipment for the job that minimizes disturbance to the stream bottom. Appropriately-tired vehicles, either tracked or wheeled, shall be used depending on the situation:<br>1. Tracked vehicles (bulldozers, loaders) may cause scarification.<br>2. Wheeled vehicles may cause compaction. | SR<br>BP |

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| 1.7 | Pump/ Generator Set Operations and Maintenance | Pumps and generators shall be maintained and operated in a manner that minimizes impacts to water quality and aquatic species.<br>1. Pumps and generators shall be maintained according to manufacturers' specifications to regulate flows to prevent dryback or washout conditions.<br>2. Pumps shall be operated and monitored to prevent low water conditions, which could pump muddy bottom water, or high water conditions, which creates ponding.<br>3. Pump intakes shall be screened to prevent uptake of fish and other vertebrates. | SR<br>BP<br>MM |
| 1.8 | Handle Sediments So As to Minimize Water Quality Impacts | Sediments shall be stored and transported in a manner that minimizes water quality impacts.<br>1. Wet sediments may be stockpiled outside of a live stream or may be stockpiled within a dewatered stream so water can drain or evaporate before removal. This measure applies to saturated, not damp, sediments and depends upon the availability of a stockpile site.<br>2. For those stockpiles located outside the channel, water draining from them will not be allowed to flow back into the creek or into local storm drains that enter the creek, unless water quality protection measures recommended by the RWQCB are implemented.<br>3. Trucks may be lined with an impervious material (e.g., plastic), or the tail gate blocked with dry dirt or hay bales, for example, or trucks may drain excess water by slightly tilting their loads and allowing the water to drain out.<br>4. Water shall not drain directly into channels (outside of the work area) or onto city streets without providing water quality control measures.<br>5. Streets shall be cleaned of mud and/or dirt by street sweeping, as necessary, and not by hosing down the street. | SR |
| 1.9 | Soil Stockpiles | If soil is to be stockpiled, no run-off will be allowed to flow back to creek. | SR |

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| 1.10 | Avoid Exposing Soils with High Mercury Levels | Bank Protection projects in portions of the Guadalupe River watershed affected by historical mercury mining may expose soils containing mercury which can affect stream water quality.<br>1. In the specified channel reaches in the Guadalupe River Basin, soils that are likely to be disturbed or excavated shall be tested for Mercury (Hg). Soils shall be remediated if:<br>a. disturbed or excavated soils exposed to flood flows below the 2.33-year channel flow level exceed 1 ppm Hg, or<br>b. disturbed or excavated soils above the 2.33-year flow level exceed 20 ppm Hg.<br>2. Remediation can be accomplished either by:<br>a. treating the site so that contaminated soils excavated for the purpose of installing bank protection will not be susceptible to erosion, or<br>b. by further excavating contaminated soils and replacing them with clean fill or other bank protection materials that are free from contaminants.<br>c. Soils with mercury concentrations exceeding 20 mg/kg will be removed and disposed of in a Class I landfill following established work practices and hazard control measures.<br>3. To ensure worker safety is protected during bank protection projects with elevated mercury concentrations in the exposed surfaces, personal protective equipment will be required during project construction to maintain exposure below levels established by the Occupational Safety and health Agency (OSHA). | BP |
| 1.11 | Concrete Use Near Waterways | Concrete that has not been cured is alkaline and can increase the pH of the water; fresh concrete will be isolated until it no longer poses a threat to water quality.<br>1. Wet sacked concrete shall be excluded from the wetted channel for a period of two weeks after installation. During that time, the wet sacked concrete shall be kept moist (such as covering with wet carpet) and runoff from the wet sacked concrete shall not be allowed to enter a live stream.<br>2. Poured concrete shall be excluded from the wetted channel for a period of two weeks after it is poured. During that time, the poured concrete shall be kept moist, and runoff from the wet concrete shall not be allowed to enter a live stream. Commercial sealants (e.g., Deep Seal, Elasto-Deck Reservoir Grade) may be applied to the poured concrete surface where difficulty in excluding water flow for a long period may occur. If a sealant is used, water shall be excluded from the site until the sealant is dry.<br>3. Dry sacked concrete shall be excluded from the wetted channel for a period of 30 days after installation. Each day during that time, it shall be watered down without causing runoff to the live stream.<br>4. Designate an area outside of the channel and floodplain to clean out concrete transit vehicles. | BP |

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| 1.12 | Groundwater Management | If high levels of groundwater in a work area are encountered, the water is pumped out of the work site. If necessary to protect water quality, the water shall be directed into specifically constructed infiltration basins, into holding ponds, or onto areas with vegetation to remove sediment prior to the water re-entering a creek. Water pumped into vegetated areas will be pumped in a manner that will not create erosion around vegetation. | SR<br>BP |
| 1.13 | Prevent Scour Downstream of Sediment Removal | Sites in the transport zone on alluvial fans may cause increased scour downstream if they experience rapid sediment accumulation after sediment removal.<br>Channel reaches up to 500 feet downstream from such sediment removal sites will be monitored to determine whether accelerated erosion is occurring. If downstream monitoring indicates that erosion is occurring, then remedial action such as rock vortex weirs or similar protection shall be carried out. | SR |
| 1.14 | Minimize Sediment Transport Downstream from In-channel Herbicide Sites | Where sediment has accumulated due to vegetation in-channel, herbicide application may result in release of sediment downstream.<br>Prior to herbicide application within active channels, the potential for significant sediment release will be assessed. If the site has the potential for significant sediment release, then one of two techniques will be considered:<br>1. Where an area has not been routinely treated with herbicides, phase new herbicide applications over several seasons, or<br>2. Remove the excess sediment through mechanical means after the vegetation is killed. | VM |
| 1.15 | Prevent Erosion Downstream of Bank Protection Sites | Increased water velocity at bank protection sites may increase erosion downstream.<br>Bank stabilization site design will assess hydraulic effects immediately upstream and downstream of the work area.<br>If the hardscape revetment would cause significant increase in erosion potential, downstream energy dissipation features such as pools or grade control structures shall be considered in the design.<br>If the evaluation identifies possible downstream impacts, proactive protection of these areas shall be provided. Such measures include, but are not limited to, coir logs, riparian enhancement planting, strategic placement of rock, and flow deflectors. | BP |
| 1.16 | Minimize Local Erosion Increase from In-channel Vegetation Removal | In-channel vegetation removal may result in increased local erosion due to increased flow velocity.<br>To minimize the effect, protect the toe of the bank by leaving vegetation to the maximum extent possible consistent with the maintenance guidelines. | VM |

**2. Vegetation**
**The District shall strive to minimize vegetation removal and shall revegetate sites as appropriate to provide erosion control and restore riparian habitat value.**

| BMP | Title | Description | Activity |
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| 2.1 | Minimize Vegetation Removal | Vegetation control and removal in channels, on streambanks, and along levees and maintenance roads shall be limited to removal necessary for facility inspection purposes, removal that is necessary to meet regulatory requirements, removal that is required to comply with fire codes, and removal that is required to meet capacity requirements per Maintenance Guidelines.<br>1. The District has developed detailed Maintenance Guidelines to address the ongoing need for maintenance of vegetation or sediment in modified streams and channels. The guidelines are engineering-based and outline the level of maintenance required to ensure adequate flood protection capacity is maintained in the streams and canals within the District's jurisdiction.<br>2. Decisions regarding the necessity of routine sediment removal and vegetation management activities (to restore channel flow capacities) will be made following the thresholds established in the guidelines. This information will be used to formulate in part an annual routine maintenance work plan.<br>3. No more than one-quarter acre of wetland or riparian vegetation will be removed during minor work activities. | All<br>All<br>MM |
| 2.2 | Minimize Stream Access Impacts | District personnel shall use existing access ramps and roads where possible. If new access points are necessary, they shall be constructed in a manner that minimizes impacts to streams:<br>1. New access points shall be created as close to the work area as possible to minimize running equipment down stream channels.<br>2. On temporary access points, remaining disturbed soil shall be compacted and seeded immediately after construction of new access points.<br>3. New access points will be constructed so as to minimize adverse impacts, such as tree removal, whenever possible.<br>4. If the access point is to be permanent, the road or ramp will have a gravel surface.<br>5. Any temporary fill used for access shall be removed upon completion of the project. Channel topography and geometry shall be restored to pre-project conditions to the extent possible. | SR<br>BP |
| 2.3 | Minimize Hardscape in Bank Protection Design | The District shall select bank repair techniques appropriate to a given site based on hydraulic and other site conditions. Refer to SMP Appendix E. Programmatic Impact Assessment and Mitigation for Routine Bank Protection Activities .<br>1. Biotechnical repair methods include live construction, willow wattling, erosion control blankets, brush matting, and installation of root wads and boulders in banks.<br>2. The repair will be designed and installed so that it will be self-sustaining and use vegetation that adds structural integrity to the stream bank. | BP |
| 2.4 |  | *[This BMP intentionally left blank for any future additions.]* |  |

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| 2.5 | Planting | Planting for erosion control and habitat restoration shall be in accordance with District revegetation guidelines. | BP |
| 2.6 | Mulching | Bark and other wood products shall be used as needed to prevent erosion of bare soil after construction is completed.<br>1. All newly planted and/or bare soil (excluding bare channel bottoms) in maintenance areas shall have a minimum 3" thick layer of bark or mulch installed except when the area is seeded. In that case, the thickness of the mulch layer shall not exceed ½ inch.<br>2. This bark or mulch can be ground-up woody products and/or leaves from either native material or from soil suppliers.<br>3. No non-native material that has allelopathic compounds (*Eucalyptus* spp.) or weed seeds shall be used as mulch in areas where it has the potential to inhibit native revegetation. Such areas would include floodplains and revegetation sites.<br>4. Any material imported from outside the District that is to be used as mulch will be certified as weed-free to the extent that certification is possible. | BP |
| 2.7 | Seeding | For banks that are scraped during sediment removal, an erosion control seed mix will be used.<br>1. A typical mix may consist of California native grasses (e.g., *Hordeum brachyantherum*, *Elymus glaucus* 'Berkeley,' *Bromus carinatus*) on slopes flatter than 3:1. *Vulpia microstachyes* may be added to the mix where slopes are steeper (e.g., 2:1).<br>2. Another seed mix may be of 'Escort' sterile wheat to provide a year's worth of protection. This mix is used only if further work is required the following year.<br>3. Temporary earthen access roads will be seeded when site and horticultural conditions are suitable. | SR |
| 2.8 | Replace Trees | The District shall replace trees as follows:<br>1. Native trees between 6 and 18 inches in diameter at breast height (dbh) that are lost due to bank protection impacts will be replaced at a ratio of 3:1. Non-native trees between 6 and 18 inches dbh will be replaced at a ratio of 1:1 with appropriate native species.<br>2. Trees removed for installation of bank protection measures shall be replaced at the site, if feasible, or at the mitigation site created for that bank protection activity.<br>3. The Plant Selection Criteria, Planting Techniques, Maintenance, and Monitoring/Reporting protocols prescribed by the "Protocol for Revegetation Associated with Bank Protection" (Appendix E of SMP) shall be implemented, as applicable to tree replacement.<br>4. Replacement of heritage-sized trees (greater than 18 inches dbh) will be consistent with local ordinances. | BP |
| 2.9 | Revegetation Site Maintenance | Follow-up maintenance shall be performed on sites that have been seeded and planted.<br>1. Maintenance shall include replacing dead or dying plants where appropriate, weeding, removing non-native plant colonizers, and ensuring that all plants receive sufficient water.<br>2. Irrigation shall be implemented as needed throughout the establishment period. | BP |

| 3. **Wildlife and Fisheries**<br>**The District shall implement measures to minimize impacts to native species, especially special-status and riparian dependant species.** | | | |
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| **BMP** | **Title** | **Description** | **Activity** |
| 3.1 | Minimize Impacts to Special-status Plants and Animals Via Site Assessments and Avoidance Measures | To avoid and minimize impacts to special-status plant and wildlife species, the annual work program shall be reviewed, and each site where special status species have been found, have been known to exist in the recent past, or are likely to occur because suitable habitat exists, will be visited by a biologist or qualified personnel under the direction of a biologist. For animal species the site surveys will be no more than 30 days prior to the start of construction or during the time of the year the species is expected to occur on-site, to determine presence of special-status species. For plant species the surveys will be conducted during the appropriate time of the year to determine presence. Information regarding the presence of special-status species on a particular worksite shall be based on the District's GIS database and professional experience of qualified staff.<br>1. The District shall use its GIS database to identify potential special-status plant and animal habitats. All projects falling within sensitive habitats will be discussed with biological staff to identify avoidance and minimization measures.<br>2. All populations detected during the surveys will be assessed and mapped. This information will be entered into the District's GIS system for future management purpose.<br>3. If maintenance activities are scheduled in the vicinity of extant populations, qualified personnel under the direction of a biologist will clearly identify the populations on site and stake or flag a buffer zone around the population in which activities are to be avoided.<br>4. Avoidance of impacts to serpentine areas or other sensitive plant habitats may include storing removed sediment offsite, limiting the method of vegetation removal to manual methods, and limiting the operation of maintenance equipment to established roads whenever possible.<br>5. Vegetation management in sensitive plant areas will use only hand control or backpack herbicide application by operators trained to identify and avoid the species to be protected.<br>6. If sensitive animals such as western pond turtles or California red-legged frogs are found, a qualified biologist will remove them to suitable habitat outside of the project limits. Moving animals will be consistent with applicable Fish and Wildlife Service and Fish and Game permits.<br>7. The results of all sensitive species surveys will be reported to the Fish and Wildlife Service, National Marine Fisheries Service and the California Department of Fish and Game in an annual report. All surveys will be reported to the CNDDB.<br>8. The District will develop and distribute informational pamphlets entitled "Sensitive Plants, Wildlife, and Fish at your Worksite." These pamphlets are designed to inform staff about sensitive species and environmental protocols and procedures. | All |

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| 3.2 | Minimize Impacts to Nesting Birds Via Site Assessments and Avoidance Measures | District personnel shall conduct SMP work in a manner consistent with the protocols established by the most current version of the District's Nesting Migratory Bird Procedure:<br>1. Project areas will be checked by qualified personnel under the direction of biologists for nesting birds prior to starting work if the work has the potential to impact nesting birds.<br>2. If nesting birds are found, implementation of a project may be delayed until after nesting is completed. Work may occur if an adequate buffer, as determined by a qualified biologist, can be established between the maintenance activity and nests. | All |
| 3.3 | Avoid serpentine habitat | The District shall identify serpentine areas and avoid disturbance to these areas to the extent possible.<br>1. The District shall use its GIS database to identify serpentine areas near work areas and avoid and minimize impacts to all stands of native vegetation that may provide suitable habitat for special-status plants and invertebrates to the greatest extent possible.<br>2. Avoidance measures may include storing removed sediment offsite, limiting the amount of vegetation to be sprayed and removed in serpentine areas, and limiting the operation of maintenance equipment to established roads whenever possible.<br>3. Facilities crossing serpentine soil grasslands shall be permanently marked in the field (and in the District GIS) and will include 100 ft. buffer zones. No upland herbicides will be used in these marked areas. Aquatic herbicides may be used after July 1. Upland vegetation control using hand labor may occur after June 15.<br>4. Facilities crossing serpentine soil shrub lands and woodlands will be surveyed by a qualified botanist. Areas supporting sensitive species shall be permanently marked in the field (and in the District GIS) and will include 100 ft. buffer zones. No upland herbicides will be used in these marked areas. Aquatic herbicides may be used after July 1. The botanist will determine what area's vegetation management using hand labor may occur after June 15. Buffer zones around individual plants or populations may be established. | All |
| 3.4 | Mitten Crab Control Measures | Sediment from the San Francisco Bay Watershed, including that for reuse, will not be removed to areas any farther south than Coyote Valley or outside of the San Francisco Bay watershed unless previously authorized by CDFG. This measure is to avoid transporting mitten crabs, a highly invasive, exotic species, to areas where they are not currently found. | SR |
| 3.5 | Minimize Loss of Aquatic Habitat from Bank Protection Work | Follow SMP Appendix E. Programmatic Impact Assessment and Mitigation for Routine Bank Protection Activities. | BP |

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| 3.6 | Remove Sediment from One Side of Large Channels in Alternate Years | Some channels are large in the sense that sediment removal operations must be conducted from both sides of the channel. Remove sediment in large channels from one side only in alternate years to minimize vegetation removal and retain emergent vegetation, which is used for food, cover, fish spawning and nursery areas, and wildlife movement corridors. According to the Maintenance Guidelines, this measure applies to the following channel reaches (Station Nos.):<br>1. Stevens Ck. (0+00–146+00)<br>2. Calabazas Ck. (0+00–102+00)<br>3. San Tomas Ck. (0+00–151+40)<br>4. Alamitos Ck. (42+65–218+00)<br>5. Guadalupe River (230+00–387+50)<br>6. Berryessa Ck. (0+00–200+00)<br>7. Lower Penitencia (0+00–40+00)<br>8. Silver Ck. (100+00–315+40)<br>9. Thompson Ck. (0+00–48+00) | SR |
| 3.7 | Salvage Native Aquatic Vertebrates from Dewatered Channels | If fisheries or native aquatic vertebrate are present when cofferdams, water bypass structures, and silt barriers are to be installed, a fish and native aquatic vertebrate relocation plan will be implemented to ensure that fish and native aquatic vertebrates are not stranded:<br>1. In non-tidal channels, where water is to be diverted, prior to the start of work or during the installation of water diversion structures, native aquatic vertebrates will be captured in the work area and transferred to another reach as determined by a qualified biologist (refer to Fish Relocation Guidelines)<br>2. Aquatic invertebrates will not be transferred (other than incidental catches) because of their anticipated abundance and colonization after completion of the repair work. | SR<br>BP |
| 3.8 | Minimize Effects of Bypass Structures on Steelhead | To prevent increases in temperature and decreases in dissolved oxygen (DO), if bypass pipes are used, they shall be properly sized (i.e., larger diameter pipes to better pass the flows). Bypass pipes may also be avoided by creating a low-flow channel or using other methods to isolate the work area. | SR<br>BP |
| 3.9 | Retain Woody Materials and Vegetation | Woody material (including live leaning trees, dead trees, tree trunks, large limbs, and stumps) will be retained unless it is threatening a structure or impedes reasonable access.<br>1. Retain and flag stumps, snags, and branches in channels that can create fish habitat.<br>2. Ensure that this woody debris does not impede water flow and does not contribute to erosion.<br>3. When woody material is removed, priority will be given to reuse of the materials in bank protection projects. Non-native species containing allelopathic compounds will not be used for construction of bank protection projects. Woody materials may also be used as mulch. (See BMP 2.6)<br>4. When retention will not compromise flood management system reliability, woody vegetation shall be left in place. | BP<br>MM |

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| 3.10 | Conduct In-Channel Work During the Dry Season | Avoid and minimize impacts to salmonids by timing stream maintenance projects in streams where there are or could be salmonids so that the use of heavy equipment in the channel is conducted outside of the migration and spawning season.<br>1. Avoid use of heavy equipment during salmonid migration and spawning season between October 15 to June 15.<br>2. In-stream work in salmonid streams may be extended after October 15th under the following conditions:<br>a. There has been no significant rainfall.<br>b. A request for an extension has been submitted to California Department of Fish and Game in writing by October 1st.<br>c. The project or projects for which extensions are being requested are at least 50% complete or can be completed within 5 business days.<br>d. National Marine Fisheries Service and California Department of Fish and Game review the request and concur that an extension would not pose an undue threat to resources.<br>e. No work under these conditions may occur after October 30th. No new projects may be started after October 15th.<br>3. Minor maintenance activities that have no impact on fisheries may be done on all streams at any time of the year. These activities include fence repair, graffiti removal, tree pruning outside the low flow channel, revegetation maintenance, rodent control, and other activities that do not occur in the water.<br>4. In streams where there are or could be salmonids, minor activities will be done in channel if the activity is necessary to provide immediate flood protection. These activities include removal of trash or debris that will impede flows, trash rack cleaning, and pier nose cleaning. These activities will be done in a manner that is sensitive to protection of fisheries resources. | SR<br>BP |
| 3.11 | Avoid Dewatering an Entire Isolated Stream Reach | Construction sites may be isolated by upstream or downstream barriers, such as culverts. In reaches that contain deep pools, the District shall maintain these pools as refuges by constructing temporary barriers so as to avoid pool destruction when preservation of the pool is not in the construction footprint or a barrier to project access. This BMP does not apply to sediment removal activities that require the removal of all sediment to restore the design capacity. | SR<br>BP |
| 3.12 | Maintain Low-low Fish Passage | If site conditions after work create a flat channel bottom in non-tidal channels, a low flow channel will be created before reintroduction of flows to allow fish passage. The goal is to avoid sheet flow only a few inches deep. This measure does not apply to tidal areas. | SR<br>BP |
| 3.13 | Remove Temporary Fills | Temporary fills, such as for access ramps, diversion structures, or cofferdams, shall be completely removed upon finishing the work. | SR<br>BP |
| 3.14 | Maintain or Provide Escape Cover | Stable undercut banks (generally those maintained by roots or boulders) shall remain in place. Larger boulders (≥2-foot diameter) with minimum 4-12" gaps used for rip-rap may provide cavities as escape cover that are not provided by sacked concrete, small rip-rap, or larger rip-rap with small rock in-fill. | BP |

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| 3.15 | Restore Pool Configuration of Channel Bottom | The District shall re-grade the channel bottom at the end of the work project to as close to original conditions as possible.<br>1. In areas used for migration by salmonids as designated on the District GIS Fisheries coverage, the depth and size of the low flow channel and pools shall emulate the pre-construction conditions as closely as possible, within the finished channel topography.<br>2. All material used to construct temporary fills will be removed upon completion of the project. | SR<br>BP |
| 3.16 | Restore Spawning Gravels in Work Site Areas | The District shall replace gravels at the end of construction in potential salmonid spawning reaches.<br>1. Spawning gravels removed as a result of stream maintenance activities in active spawning locations will be replaced. A typical gravel-cobble mixture may have the following specification: the cobble/gravel material shall be made up of 30% 8-inch cobble, 30% 4-inch cobble, 30% 2-inch gravel, 10% ½-inch gravel, and no fines. Site-specific requirements for replacement gravels will be factored into creating an appropriate gravel mixture.<br>2. Spawning gravel replacement will be configured to maximize functional benefits including salmonid spawning, aquatic invertebrate production, and juvenile escape cover. | SR<br>BP |
| 3.17 | Reuse Sediments and Gravels As Appropriate | Where practical, the District will reuse removed sediments and gravels.<br>1. Sediments that are considered for re-use will be tested for hazardous materials and graded for structure as necessary in order to determine their appropriateness for re-use. When sediments or gravels are reused, the District will ensure that the reuse does not cause any additional erosion, siltation, or other negative environmental consequences. Reuse will be considered within the context of environmental, regulatory, and fiscal consequences.<br>2. Re-use will be considered within the context of environmental, regulatory, and fiscal consequences.<br>3. Sediments removed as part of routine stream maintenance activities may not be re-used in streams as part of the SMP. Re-use of sediments removed as part of routine maintenance will be negotiated under a separate permit. | SR |
| 3.18 | Herbicide Use in Aquatic Areas | Only herbicides and surfactants registered for aquatic use will be applied within the banks of channels within 20 feet of any water present.<br><br>Aquatic herbicide use is limited to July 1st through October 15th, except on Guadalupe River, where it is limited to July 1st to August 15th. If rain is forecast within 24 hours, then application of aquatic herbicide will be rescheduled. | VM |

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| 3.19 | Develop a Biodiversity Monitoring Program | The District commits to developing and implementing a biodiversity monitoring program in conjunction with SMP. The focus of the program will be on special-status species and their habitats. Monitoring results will be incorporated into future BMP and maintenance design through the "lessons learned" process of annual review (refer to SMP Figure 3-1) so as to more effectively conserve and restore stream habitats.<br>1. Monitoring protocols for listed species will be approved by the Fish and Wildlife Service, National Marine Fisheries Service or California Department of Fish and Game as appropriate.<br>2. The results of all sensitive species monitoring will be reported to the Fish and Wildlife Service and the California Department of Fish and Game in an annual report. All surveys will be reported to the CNDDB.<br>3. Monitoring will be conducted during the appropriate time of year for each species under investigation.<br>4. All populations detected during the monitoring will be assessed and mapped. This information will be entered annually into the District's GIS system for future management purposes.<br>5. Sensitive species monitoring and baseline surveys may include activities such as: California red-legged frog surveys and western pond turtle trapping covering at least 20 miles of stream per year (repeat surveys every 5 years); survey at least 2 miles of California Clapper Rail habitat per5 year for 5 years; map the distribution of pickleweed and cordgrass within and adjacent to District facilities every 5 years; survey at least 10 miles of creek annually for raptor nest locations; survey known burrowing owl locations on District facilities annually; survey at least 10 miles of creek annually for western leatherwood (repeat every 5 years); monitor distribution of Bay checkerspot and Opler's longhorn moth habitat on District facilities every 3 years; monitor at least 2 miles of freshwater and tidal emergent marsh for sensitive bird use annually (repeat every 5 years); monitor at least 5 miles of riparian habitat annually for sensitive birds (yellow warbler) (repeat every 5 years); survey serpentine habitats for sensitive plants at least every 3 years.<br>6. Update the figure "Fisheries present in streams within jurisdiction of the Santa Clara Valley Water District" (Figure IVB1) every 5 years. | All |

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| 3.20 | Minimize Adverse Effects of Herbicides on Non-target Species | Herbicides are a key component of vegetation management under the SMP. Herbicides shall be used in a manner that minimizes negative environmental effects by avoiding impacts to non-target species. Herbicide use will be guided by label restrictions and any advisories published by the California Department of Pesticide Regulation (CDPR) or the County Agricultural Commission. The US EPA bulletin *Protecting Endangered Species, Interim Measures for Use of Pesticides in Santa Clara County* provides additional guidelines for herbicide use (US EPA 2000).<br>1. Herbicide use will be reviewed annually prior to application using information from CDPR and US EPA maintained in the District GIS database to determine the potential presence of special-status species that could be adversely affected, and the target areas and chemicals used will be modified as necessary.<br>2. To avoid toxic effects to all life stages of California Red-legged Frogs (RLF), whenever herbicides are to be used in within 1.25 miles of known RLF locations, the District will refer to both the product label for the material being used and the Endangered Species Database maintained by the California Department of Pesticide Regulation and use the lower of the two recommended rates if there is a difference. | VM |

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| 3.21 | Minimize Rodenticide Impacts on Non-target Species | Burrowing rodents are controlled to minimize damage to levees on streams and canals. Rodent control areas will be reviewed for the potential presence of special-status species and the rodent control methods tailored to minimize non-target species impacts. When chemical control is necessary, the use will be guided by label restrictions and any advisories published by the California Department of Pesticide Regulation (CDPR) or the County Agricultural Commission. The EPA bulletin *Protecting Endangered Species, Interim Measures for Use of Pesticides in Santa Clara County* provides additional guidelines for rodenticide use (USEPA 2000).<br>1. Within the potential range of salt marsh harvest mouse (SMHM) (as designated on the District's GIS), lethal rodent control methods shall not be used. The District defines potential SMHM habitat as all areas north of Highway 237 as shown in Figure IV B11, and will refine this definition as surveys are conducted to eliminate areas that are separated by barren ground by at least 10 yards from any halophytic vegetation.<br>2. In areas occupied by burrowing owls, fumigants shall not be used unless specifically determined safe by a qualified biologist.<br>a. The location of Burrowing Owls will be identified on the District's GIS system.<br>b. A 1/4 mile buffer zone around burrowing owl locations will be established.<br>c. If necessary alternative methods of rodent control will be determined by a qualified biologist.<br>3. The rodenticide applicator shall remove carcasses of poisoned animals, when they are found, to minimize secondary toxic effects on raptors or other wildlife. Carcass survey and disposal shall be performed in the treated area beginning on the third day following the initial exposure of toxic baits. Any exposed carcasses shall be disposed of in a manner inaccessible to wildlife. Carcass surveys shall continue for at least 5 days after toxic baiting has ceased and thereafter until no more carcasses are found. Any dead raptors or other wildlife found in the treated area during the carcass surveys shall be turned over to CDFG's pesticide lab for analysis. | MM |
| 3.22 | Herbicide Use in Upland Areas | Application of herbicides to upland areas shall not be made within 24 hours of predicted heavy rainfall. | |

| **4. Land Use and Public Safety**<br>**The District shall minimize disturbance to the public and ensure public safety.** | | | |
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| **BMP** | **Title** | **Description** | **Activity** |
| 4.1 | Notify Local Governments of Scheduled Work | Notify cities and the County of proposed work by submitting the Annual Work Plan to the Public Works Departments and the District's Zone Advisory Committee. | All |
| 4.2 | Minimize Disturbances to Surrounding Neighborhoods | The District shall implement maintenance practices that minimize disturbances to neighborhoods surrounding work sites.<br>1. In general, work shall be conducted during normal working hours. Extending weekday hours and working weekends may be necessary to complete some projects.<br>2. Internal combustion engines shall be equipped with adequate mufflers.<br>3. Excessive idling of vehicles will be prohibited.<br>4. Levee traffic shall be limited to a speed of 15 miles per hour.<br>5. Access roads shall be watered as needed to control dust.<br>6. Dry sediment shall be wetted down or covered as needed to control dust during transport. | All |
| 4.3 | Stabilized Construction Entrance | The District shall implement measures to minimize soil from being tracked onto streets near work sites:<br>1. Methods used to prevent mud from being tracked out of work sites onto roadways include installing a layer of geotextile mat, followed by a 4-inch thick layer of 1- to 3-inch diameter gravel on unsurfaced access roads.<br>2. Access shall be provided as close to the work area as possible, using existing ramps where available and planning work site access so as to minimize disturbance to the creek bed, creek banks, and the surrounding land uses. | SR<br>BP |
| 4.4 | Sanitary/Septic Waste Management | Temporary sanitary facilities shall be located on jobs that last multiple days. All temporary sanitary facilities shall be placed outside of the creek channel and floodplain. | All |
| 4.5 | Vehicle and Equipment Cleaning | District vehicles shall be washed only at the approved area in the corporation yard. No washing of vehicles shall occur at job sites. | All |
| 4.6 | Work Site Solid Waste Management | District employees and contractors shall clean the work site before leaving by removing all litter and construction related materials. The District's maintenance crews shall be responsible for all debris incurred as a result of construction and for cleaning up dumped material. | All |
| 4.7 | Herbicide Use Requirements | All herbicide use shall be consistent with approved product specifications. Applications shall be made by, or under the direct supervision of, State Certified applicators under the direction of a licensed Pest Control Advisor. | VM |

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| 4.8 | Implement Public Safety Measures | The District shall implement public safety measures during maintenance:<br>1. Construction signs shall be posted at job sites warning the public of construction work and to exercise caution.<br>2. When necessary, a person shall be provided for traffic control.<br>3. If needed, a lane shall be blocked off to allow for trucks to pull into and out of the access points.<br>4. Where work is proposed adjacent to a recreational trail, warning signs shall be posted several feet beyond the limits of work.<br>5. Fencing, either the orange safety type or chain link, shall be installed above repair sites on bank stabilization projects. | All |
| 4.9 | Notify Park Departments of Trail Closures | As part of the Annual Work Plan, The District will notify the park departments of trails that could be subject to closure. The type of work, location and duration of each project that will affect trail closures will be identified. | SR BP VM |

**5. Air Quality**

**The District shall implement dust control measures at work sites to protect air quality and minimize effects on adjacent neighborhoods.**

| BMP | Title | Description | Activity |
|---|---|---|---|
| 5.1 | BAAQMD Basic Dust Control Measures | The District shall implement BAAQMD Basic Control Measures at maintenance sites less than four acres in size. Current measures stipulated by the BAAQMD CEQA Guidelines include the following:<br>1. Active maintenance areas shall be watered at least twice per day unless soils are already sufficiently moist to avoid dust.<br>2. Trucks hauling sediments and other loose material shall be covered or shall maintain at least two feet of freeboard.<br>3. Tailgates of trucks shall be sealed.<br>4. Trucks shall be brushed down before leaving the maintenance site.<br>5. Unpaved access roads and staging areas that are being used for the maintenance activity shall be watered three times daily, or non-toxic soil stabilizers shall be applied to control dust generation.<br>6. Paved maintenance site access roads shall be swept when visible soil material is carried onto the roadway. | SR<br>BP |
| 5.2 | BAAQMD Enhanced Dust Control Measures | For single maintenance sites greater than four acres, the District shall implement BAAQMD Enhanced Dust Control Measures. These measures include the following:<br>1. Inactive areas shall be sprayed with soil stabilizer or seeded.<br>2. Exposed stockpiles shall be watered, enclosed, covered, or sprayed with soil stabilizers.<br>3. Traffic speeds shall be limited to 15 mph.<br>4. Sandbags or other bank protections shall be installed to prevent silt runoff to roadways.<br>5. Vegetation in disturbed areas shall be replanted as soon as horticulturally appropriate. For example, plant material may not be ready as soon as the job is done (e.g. willow cuttings have to be collected during winter dormancy). | SR<br>BP |
| 5.3 | Avoid Stockpiling Potentially Odorous Sediments | Some of the sediment removal sites will have sediment that is rich in organic matter decaying in an anaerobic condition, which generates assorted malodorous gases, such as reduced sulfur compounds. These sediments shall be handled in a manner that avoids impacting sensitive receptors.<br>1. The District shall avoid stockpiling potentially odorous sediments within 1000 feet of residential areas or other odor sensitive land uses.<br>2. Where appropriate, odorous stockpiles shall be disposed of at an appropriate landfill. | SR |

**6. Hazardous Materials**
**The District shall implement hazardous materials protocols to protect environmental quality and public safety.**

| BMP | Title | Description | Activity |
|---|---|---|---|
| 6.1 | Spill Prevention | The District shall prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water into channels.<br>1. District field personnel will be appropriately trained in spill prevention, hazardous material control, and clean-up of accidental spills.<br>2. No fueling, repair, cleaning, maintenance, or vehicle washing shall be performed in the creek channel or in areas at the top of the channel bank that may flow into the creek channel. | All |
| 6.2 | Spill Kit Location | Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations).<br>1. Prior to entering the work site, all field personnel will know the location of spill kits on crew trucks and at other locations within District facilities.<br>2. All field personnel will be advised of these locations and trained in their appropriate use. | All |
| 6.3 | Hazardous Materials Management | The District shall implement measures to ensure that hazardous materials are properly handled and the quality of water resources is protected by all reasonable means when removing sediments from the streams.<br>1. Prior to entering the work site, all field personnel will know how to respond when toxic materials are discovered.<br>2. The discharge of any hazardous or non-hazardous waste as defined in Division 2, Subdivision 1, Chapter 2 of the California Code of Regulations shall be conducted in accordance with applicable State and federal regulations.<br>3. All handling and disposal of sediments shall be performed in accordance with the WDR issued by the RWQCB. The sediment shall ultimately be disposed at a permitted landfill. Any alternative use or disposal will require RWQCB approval. | All |
| 6.4 | Vehicle and Equipment Fueling | No fueling shall be done in the stream channel or immediate floodplain, unless equipment stationed in these locations is not readily relocated i.e., pumps, generators. For stationary equipment that must be fueled on site, containment will be provided in such a manner that any accidental spill of fuel will not be able to enter the water or contaminate sediments that may come in contact with water. Any equipment that is readily moved out of the channel will not be fueled in the channel or immediate floodplain. All fueling done at the job site will provide containment to the degree that any spill will be unable to enter the channel or damage stream vegetation. | All |

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| 6.5 | Vehicle and Equipment Maintenance | No equipment servicing shall be done in the stream channel or immediate floodplain, unless equipment stationed in these locations cannot be readily relocated i.e., pumps, generators.<br>1. Any equipment that can be readily moved out of the channel will not be serviced in the channel or immediate floodplain.<br>2. Al servicing of equipment done at the job site will provide containment to the degree that any spill will be unable to enter the channel or damage stream vegetation.<br>3. If emergency repairs are required in the field, only those repairs necessary to move equipment to a more secure location will be done in the channel or floodplain.<br>4. If emergency repairs are required, containment will be provided equivalent to that done for fueling or servicing. | All |
| 6.6 | Employee/ Contractor Training | All appropriate District staff and contractors shall receive annual training on Stream Maintenance Program BMPs. | All |

**7. Cultural Resources**
**The District will protect cultural resources.**

| BMP | Title | Description | Activity |
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| 7.1 | Discovery of Cultural Remains or Historic Artifacts | Work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met.<br>1. Work at the location of the find will halt immediately within 30 feet of the find. If an archaeologist is not present at the time of the discovery, SCVWD will contact an archaeologist for identification and CEQA evaluation.<br>2. If the find is not significant, construction can continue. The archaeologist will prepare a brief informal memo/letter that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find.<br>3. If the find appears significant, the archaeologist will determine if the resource can be avoided and will detail avoidance procedures.<br>4. If the resource cannot be avoided, the archaeologist will develop within 48 hours an Action Plan to avoid or minimize impacts. The SCVWD field crew will not proceed until the Action Plan is approved by the SCVWD Watershed Manager.<br>5. The recovery effort will be detailed in a report prepared by the archaeologist in accordance with current archaeological standards. Any non-grave artifacts will be placed with an appropriate repository.<br>6. In the event of discovery of human remains, the field crew supervisor shall take immediate steps to secure and protect such remains.<br>7. The Santa Clara County Coroner shall be notified and informed of the find and of any efforts made to identify the remains as Native American. If the remains are determined to be from a prehistoric Native American, the medical examiner is responsible for contacting the Native American Heritage Commission (NAHC) within 24 hours of notification. The NAHC then designates and notifies within 24 hours a *Most Likely Descendant* (MLD). The MLD has 24 hours to consult and provide recommendations for the treatment or disposition, with proper dignity, of the human remains and grave goods.<br>8. Preservation in situ is the preferred option, and if the District can do this without incurring potential future disturbance, then the MLD will usually recommend no further action. The remains and artifacts will be documented and the find location carefully backfilled to avoid further disturbance.<br>9. Human remains or cultural items exposed during maintenance that are subject to further disturbance will be exhumed archaeologically at the discretion of the MLD and reburied with the concurrence of the MLD in a place mutually agreed upon by all parties. | All |

# APPENDIX B
# FISHERIES EVALUATION
# BY ENRIX, INC.

# STEVENS CREEK DROP STRUCTURE MODIFICATION UPSTREAM OF HIGHWAY 85 PROJECT FISHERIES EVALUATION

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Project No. 381201

**May 31, 2001**

## INTRODUCTION

The Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) Technical Advisory Committee (TAC) has been working to compile existing information on limiting factors on steelhead populations in Santa Clara Valley Streams, including Stevens Creek. This analysis indicated that fish passage was a limiting factor to the steelhead population on Stevens Creek. The Santa Clara Valley Water District (District) conducted a survey of passage barriers on Stevens Creek and completed a ranking analysis of these barriers. The passage barrier at the Stream Gage Station 35, between the Central Avenue pedestrian bridge and the Highway 85 bridge crossing in the city of Mountain View, was one of the barriers along Stevens Creek that was ranked as a priority for remediation. As a result, the District has designed a project to provide improved fish passage at that site.

This report presents the background information on the native fisheries in Stevens Creek, a description of other barriers and available habitat in the creek, and an evaluation of potential fisheries impacts and benefits anticipated from the proposed Stevens Creek Drop Structure Modification Upstream of Highway 85 Project, all with an emphasis on steelhead.

## FISH SPECIES AND HABITAT REQUIREMENTS

A thorough account of all fish species recorded in San Francisco Bay streams was completed in the early 1980's (Leidy 1984). Prior to 1984 ten fish species had been recorded in Stevens Creek. These species include: steelhead rainbow trout (*Oncorhynchus mykiss*), California roach (*Lavinia symmetricus*), Sacramento squawfish (*Ptychocheilus grandis*), Sacramento sucker (*Catostomus occidentalis*), threespine stickleback (*Gasterosteus aculeatus*), hitch (*Lavinia exilcauda*), carp (*Cyprinus carpo*), goldfish (*Carassius auratus*), mosquitofish (*Gambusia affinis*), and pumpkinseed sunfish (*Lepomis cyanllus*) (Leidy 1984). The first six fish species are native to bay area streams and the other four are non-native. Sampling conducted between 1991 and 1994 reported five of the same species recorded during earlier sampling, including: rainbow trout, California roach, Sacramento sucker, threespine stickleback, and mosquitofish; and two additional non-native species: channel catfish (*Ictalurus punctatus*), and green sunfish (*Lepomis cyanellus*). Hitch, carp, goldfish, and pumpkinseed sunfish were not reported during these surveys (Habitat Restoration Group 1995).

For the purposes of the impact analysis, only native species will be considered. The non-native fishes are rare in most cases (Leidy 1984 and Habitat Restoration Group 1995) and undesirable. Only one record of carp in Stevens Creek was found and that was from 1978. There are only four records of goldfish in Stevens Creek, three from the 1940's and one from 1981. In 1981 one pumpkinseed sunfish was captured in Stevens Creek. Likewise, in 1991 only one green sunfish was captured in Stevens Creek. In 1994 a few channel catfish were recorded in Stevens Creek just downstream of the reservoir. Finally, mosquitofish were the most abundant non-native fish recorded in Stevens Creek in 1975, 1981, and 1994.

Trapping data and genetic analysis indicate that that steelhead and/or a coexisting resident form of rainbow trout occur downstream of Steven Creek Reservoir on Stevens Creek. Outmigrant trapping data collected by the District in 1998 and 1999 indicate that there are steelhead/rainbow trout moving out of the system in the spring. The trap was only placed in the stream for the first two weeks of June in 1998 and only one steelhead/rainbow trout was captured. Trapping in 1999 began in mid-April and continued through June and was more successful than the previous year. A total of 96 fish were captured, with fish being captured as late as June 23. These fish appeared to be steelhead based upon coloration. A genetic study of captured fish in Stevens Creek indicated that there was both an apparently "native" steelhead population as well as a nonnative resident rainbow trout population downstream of the Stevens Creek Reservoir (Smith 1999). It is generally unlikely for both populations to coexist, but the difficult upstream passage for steelhead adults and downstream passage for smolts in the system, apparently allows for coexistence of the two populations (Smith 1999).

**Steelhead trout** are an anadromous form of rainbow trout. They usually spend one to two years in the ocean before returning to spawn for the first time (Shapovalov and Taft 1954). Unlike other anadromous pacific salmonids, steelhead may survive spawning, and return to the ocean and spawn again in a later year (Shapovalov and Taft 1954, Moyle 1976). Spawning takes place in the spring, usually between January and March for steelhead stocks and may extend into June for resident stocks (Moyle 1976). They usually spawn at the heads of or in riffles with gravel substrate (Moyle 1976). Optimal gravel substrate size ranges from 0.6 to 5.2 cm (Bjornn and Reiser 1991). The female digs a pit in the gravel where she deposits her eggs. Often more than one male will fertilize the eggs before the female covers the eggs with gravel, creating a redd (Moyle 1976).

During incubation, sufficient water must circulate through the redd to supply embryos with oxygen and remove waste products. Abundant fine sediments can interfere with this process and result in embryo mortality (Bjornn and Reiser 1991). Juvenile trout emerge from the gravel in approximately five to eight weeks, between March and April, depending on water temperature (Shapovalov and Taft 1954, Moyle 1976).

In California, juveniles generally spend one to three years in freshwater before migrating to the ocean, usually between March and June (Shapovalov and Taft 1954). Trapping data from 1999 on Stevens Creek indicates that steelhead smolts from this system follow this pattern and migrate between April (possibly earlier) and continue through the end of June, possibly longer if flows are available. Young-of-the-year rainbow trout often utilize riffle and run habitat during the growing season and move to deeper, slower water habitat during the high flow months (Baltz and Moyle 1984, Hearn and Kynard 1986). Larger trout, usually yearlings or older, have been observed using heads of pools for feeding (Cunjak and Green 1983, Baltz and Moyle 1984).

Temperature tolerances and preferences of rainbow trout vary among seasons, life stages, and stock characteristics. Juvenile rainbow trout can typically tolerate warmer temperatures than other pacific salmonids (Moyle 1976). However, at temperatures greater than 70°F, rainbow trout have difficulty obtaining sufficient oxygen from the water (McEwan and Jackson 1996). The preferred temperature range is reportedly 12.8-15.6°C (55.0-60.1°F) (Rich 1987), although they have been reported at higher temperatures if abundant food and dissolved oxygen exists (Moyle 1976, Carpanzano 1996). The Critical Thermal Maximum (CTM, the temperature at which a fish loses equilibrium and dies) for this species has been reported to be up to 29.4°C (84.9°F) (Lee and Rinne 1980). Warmer water requires more abundant food resources for fish survival, because of the resultant increase in their metabolic rate (Brett 1971, Fausch 1984). It should be recognized, however, that streams with warmer water would be expected to have more productive insect populations, thus providing the abundant food resources needed for fish survival and growth.

**California roach** are minnows that are often classified as a warm water fish, because they can tolerate warm water (30 to 35°C) and low dissolved oxygen concentrations (1 to 2 ppm) (Moyle 1976). They can do well in streams that dry to isolated pools, because of the lack of competition. They are often found, however, in the cold water reaches of streams along with rainbow trout. They generally live to three years of age, reaching approximately 90 mm SL. They feed mostly on algae, but also eat aquatic insects and crustaceans. They spawn in schools in shallow flowing water over small gravels between March and June.

**Sacramento squawfish** are large, piscivorous minnows that are most abundant in large, clear, warm streams (Moyle 1976). They can be found in association with rainbow trout, but they do not do well where temperatures stay below 15°C. Squawfish inhabit deep, shaded pools and feed on insects when they are small and on other fishes as they grow over 18 cm SL. They are sexually mature by their third or fourth year and spawn in gravel riffles in April and May when water temperature rises above 14°C. The oldest Sacramento squawfish on record was nine years old and the largest was 115 cm SL.

**Sacramento suckers** are most often found in the pools of clear, cool to warm streams or in lakes and reservoirs (Moyle 1976). They are usually associated with native minnows and can be found with trout. Suckers are most active at night, when they feed on algae, detritus, and bottom dwelling invertebrates. Growth is highly variable and the percentage of larger fish varies among populations. Sacramento suckers can be fairly long lived, over ten years, and are commonly found up to 60 cm SL. They spawn for the first time in their fourth or fifth year. Spawning over gravel riffles takes place between February and June in most areas.

**Three-spine stickleback** are very small fish that inhabit clear, quiet-water areas in ponds and streams (Moyle 1976). They can be found in cool water streams, but are usually found in warmer backwater areas in those streams. The largest fish grow to 8 cm TL and most only live one year. They feed primarily on bottom or plant dwelling organisms. Beginning in April through July, sticklebacks move into breeding areas. Males generally turn reddish in color, set up territories, and begin nest construction. Once the nest is complete, a female enters the nest and deposits her eggs, which the male fertilizes. The male then tends the eggs by fanning the nest with his pectoral fins. Once the eggs hatch, the male guards the school of fry for a short period.

**Hitch** are minnows that are found in warm lakes and ponds and sloughs or slow moving stretches of river (Moyle 1976). In small streams they inhabit sandy-bottomed pools with aquatic vegetation. Hitch are omnivores in open-water and on the surface. Hitch grow to about 30 cm SL, mature in their first through third years, and live past five years. They spawn between March and July and have been known to hybridize with California roach. Hitch may be found in the lower section of the project reach only occasionally.

## FISH HABITAT IN STEVENS CREEK

As part of the FAHCE, Stevens Creek was habitat typed during the summer of 1999. The focus of the survey was to determine he availability and quality of rearing and spawning habitat for rainbow trout. The habitat survey extended from the Moffett Boulevard Bridge to the outlet structure of Stevens Creek Reservoir (10.38 miles upstream). The lower portion of the creek is in an industrial area, but most of the creek runs through suburban residential areas. The upper portion below the reservoir also runs through parks and golf courses.

During flow conditions ranging from 2.7 to 14.5 cfs, which are controlled from releases from Stevens Creek Reservoir and some inflow from numerous culverts, a total of 1,021 habitat units were typed in 10.38 miles of channel. Stevens Creek in the summer was a shallow stream with a mean average depth of 1 foot, and a maximum mean depth of 7 feet.

Stevens Creek was divided into four reaches, based on channel type. Reach 1, the downstream reach, extends from Moffett Boulevard to Landels Park. Reach 2, is the longest reach and extends between Landels Park and Stevens Creek Boulevard. Reach 3 extends from Stevens Creek Boulevard to Linda Vista Park. Reach 4, the upstream reach extends from Linda Vista Park to Stevens Creek Reservoir. Stream gage station 35 drop structure is located at the upstream end of Reach 1.

The surveyed reaches of Stevens Creek were 49% pool habitat with 36% run habitat and 15% riffle habitat by area. Mean lengths of pools and riffles were similar in all reaches, but runs became successively shorter in upstream reaches. Wetted widths of riffles were narrower in Reaches 1 and 4, but pools were slightly wider.

Only a small percentage of Stevens Creek had suitable habitat for 4-inch juvenile salmonid rearing. In Reach 1 only 2.5 % of the area was suitable for 4-inch juvenile salmonid rearing. The overall habitat quality for juvenile rearing in this reach was rated Poor or None for 89% of the area, and Fair for 11%. As pools were a bit shorter in Reach 2 and 3 and slightly more riffle habitat was available, habitat quality improved slightly. In Reach 2, 6.6% of the area was suitable for 4-inch salmonids. A larger percentage of the area (34%) was rated as Fair or Good for overall habitat quality. Reach 3, improved slightly again, as 8.3% of the area was suitable for 4-inch salmonids, and overall habitat quality was Fair or Good in 42 % of the area. In Reach 4, the amount of pool habitat increased, and 5.5% of the area was suitable for 4-inch salmonids. In this reach, overall habitat quality was Poor for 63% of the area, with the rest Fair to Good.

The majority of rearing habitat quality for juvenile salmonids in Stevens Creek is poor. Only 33% of the habitat area in Stevens Creek is rated Fair or Better, and less than 10% is rated as Good. A rating of Poor was given to 46% of the habitat, and there is no suitable habitat in 21% of the total area. Rearing habitat was most commonly constrained by food transport (52% of the total area). Cover and depth were also constraining factors.

Lack of cover and shallow depth were often constraining factors in all reaches. Food transport was the primary constraint in pools. Pools in Reaches 1 and 2 were also constrained by lack of cover (20%).

Spawning gravels were found in very limited quantities in all reaches. Much of Stevens Creek, particularly Reach 2 and 3, had compacted substrate, which would make some of the spawning gravels difficult for salmonids to use. However, there were isolated areas that had suitable spawning gravels. The substrate became less compacted in Reach 4.

In general, rearing and spawning habitat improved further upstream in the system. The most suitable habitat for steelhead is upstream of the Fremont Avenue fish ladder, approximately three miles upstream of the project site. In Reach 1, downstream of the project site, rearing habitat is limited by food transport and lack of cover. There is very little suitable steelhead habitat downstream of the project site. In addition, temperature data collected by the District indicates water temperatures in Stevens Creek are generally suboptimal for juvenile rearing and they generally increase during late spring, summer, and early fall (May – October) as a function of distance downstream from the reservoir. Higher temperatures require more abundant food sources (Smith and Li 1983), which are absent from the stream downstream of the project site.

All of these factors combined make the habitat downstream of the project site unsuitable for steelhead, except as a passage corridor. The most suitable habitat for steelhead spawning and rearing is located upstream of Fremont Avenue (J. Smith pers. com.).

## STEELHEAD BARRIERS

The FAHCE Limiting Factor Analysis identified fish passage impediments as a significant limiting factor for steelhead in Stevens Creek. Several studies have been done to determine steelhead migration barriers in the system. The first such study was conducted in 1995 and identified 32 barriers. These barriers were classified into four categories: drop structures, chutes, fords, and recreational weirs and were both partial and termporal, but none were considered "total barriers" to fish migration. During the habitat typing conducted in 1999, permanent migration barriers were also noted. The 1999 survey found six potential migration barriers, fewer than the previous survey, but higher flows were present during this survey than usally exist and only large drop structures were noted.

Since the time of these surveys, a District biologist has compilied this information and done field verification of the barriers. They have evaluated all the possible barriers for degree of impaired passage condition. The evaluation was based on professional judgement and resulted in a rating of the barriers for remediation. Non of the barriers are considered "total barriers", but some are rarely passable and others are often passable. The barriers were rated 1 to 4, with a 1 indicating that it passable only under a small range of flow conditions and a 4 indicating that it was passable at a fairly high range of flow conditions. A rating of 2 or 3 was intermediate, with passage possible some times.

Forty passage barriers were identified, including various types: drop structures; non-functioning fish ladders; road culverts, chutes, or bridges; recreational weirs; areas of sediment accumulation or debris; low flow vehicle crossings; and debris jams. Of these 40 barriers, five were rated priority 1, indicating that they were severe passage impediments to steelhead and probably nearly complete upstream migration barriers to other native fishes at all flow conditions. The project site was one of the barriers rated as a 1. The other barriers rated as 1 were the Moffett fish ladder, which is downstream of the project site; and the Evelyn Avenue fish ladder; the Fremont Avenue fish ladder; and a low flow vehicle crossing at Blackberry Farm, all upstream of the project site.

## POTENTIAL PROJECT EFFECTS AND MITIGATIONS

There is an absence of steelhead and other native fish habitat in the project site. The area is most likely used primarily as a migration corridor for steelhead and it is unlikely that successful spawning takes place downstream of Fremont Road (J. Smith pers. com.). The concrete lining throughout most of the site prohibits spawning and the lack of habitat complexity, instream cover, overhanging vegetation, and gravel substrates for food production prohibit juvenile steelhead and other native fish rearing at the site. The project will result in a long-term benefit to steelhead in Stevens Creek, allowing them to more easily access appropriate spawning and rearing habitat. No long-term impacts are expected at the project site.

In 2000 the FAHCE plan to improve juvenile rearing habitat through coldwater pool management of reservoirs resulted in a dry stream channel upstream to approximately Fremont Road. If the FAHCE coldwater pool management plan continues into the construction year, it is likely that the site will be completely dry during construction and no native fish species will be present. If, however, the stream is not dry during construction, there is the potential to impact fish in, moving through and downstream of the project site.

### Mitigation Measures to Avoid Potentially Significant Construction Related Effects

1. Work in the active channel will not begin until the stream is dry (due to FAHCE coldwater management) or until the steelhead outmigration period is complete (as documented by trapping or June 1, whichever is earlier) and will be completed prior to the beginning of the rainy season and the first significant storm (as specified in the project permits).

2. If water is flowing in the creek during construction, a clean water bypass will be installed, consisting of a coffer dam and a culvert, diverting water around the site where heavy equipment will be within the channel.

3. Straw bales or fine mesh netting will be placed downstream of heavy equipment work in the channel to limit the amount of coarse and suspended sediment moving downstream of the work site. These silt barriers will be removed when restoration work is completed.

4. Refueling of heavy equipment and vehicles will only occur within a designated, paved, bermed area where potential spills can be readily contained.

5. Equipment and vehicles operated in or in close proximity to the creek shall be checked and maintained to prevent leaks of fuels, lubricants or other fluids into the creek.

6. All areas disturbed by heavy equipment access to the creek will be revegetated once the construction activities are complete to prevent erosion.

7. All construction personnel will be informed of the potential for sensitive species to occur (and cursory identification) and will be instructed to inform the a District biologist if potential sensitive species are located.

8. All trash brought in by construction crews will be removed daily from the project site.

9. If water is flowing during construction, a biological monitor will conduct daily surveys prior to the onset of restoration activities to determine if steelhead and other native fishes are present in the vicinity of the activities. An effort will be made to capture fish by electrofishing and relocate them downstream or upstream of the work site. These relocation activities will be conducted by experienced electrofishers who have the necessary California Department of Fish and Game scientific research and National Marine Fisheries Service section 10(A)(1)(a) permits. Block nets will be placed in the stream to keep fish from returning to the site.

**Conclusion**

Limited habitat exits for spawning and rearing in and downstream of the project site. Improving passage to upstream habitat is beneficial to steelhead and insignificant short-term impacts are expected with mitigations.

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# APPENDIX C
# REVEGETATION PLAN FOR TEMPORARY ACCESS ROAD

# Stevens Creek Fish Ladder

## 1) Landscaped Berm Area

Plant Material to be removed:

| Quantity | Botanical Name | Common Name |
|---|---|---|
| 3 | Quercus agrifolia | Coast live oak |
| 1 | Quercus lobata | Valley oak |
| 4 | Ceanothus thrysifolorus | Blue Blossom |
| 6 | Ceanothus griseus horizontalis | "Yankee Point" |

Replacement Plant Material:

| Quantity | Botanical Name | Common Name | Size |
|---|---|---|---|
| 4 | Quercus agrifolia | Coast live oak | 24" box* |
| 1 | Quercus lobata | Valley oak | 24" box* |
| 4 | Ceanothus thrysifolorus | Blue Blossom | 5 gal |
| 6 | Ceanothus griseus horizontalis | "Yankee Point" | 5 gal |

*All trees shall be staked

A. Any trees adjacent to excavation area shall be protected from damage.
B. Berm planting area shall be covered with 3" of approved mulch
C. Any disturbed soil shall be decompacted to 75% compaction and returned to finish grade
E. Irrigation system shall be cut & capped prior to excavation work.
F. Lateral lines shall be reconnected, bubblers shall be reinstalled to each plant, and tested prior to replacement plants being installed.
G. All installations shall be made according to plans & specifications for City of Mountain Veiw, Stevens Creek Trail and and Wildlife Corridor Reach 3: Project 92-15

## 2) Access through Riparian Area

Plant Material to be removed:

| Quantity | Botanical Name | Common Name |
|---|---|---|
| 3 multi-stem | Robinia pseudoacacia | Black locust |

Replacement Plant Material:

| Quantity | Botanical Name | Common Name | Size |
|---|---|---|---|
| 2 | Quercus agrifolia | Coast live oak | t-pot |
| 8 | Populus trichocarpus | Black cottonwood | t-pot** |

Plants shall be installed as field engineer directs
Plants shall be installed with 2 DRIWATER gel packs or equal per plant
** Pole Cuttings may be used if work if collected & installed during dormant season

A. All necessary pruning of branches larger that 2" shall be done or directed by a certified arborist
B. All disturbed areas shall be hydroseeded with SCVWD specified erosion control seed mix. See attached list.
C. Seed mix shall be from Stevens Creek watershed if available.

## 3) Creek Channel

A. Any willows that have more than 30% of branches removed shall be replaced with cuttings made from willows adjacent to the project site
B. Cuttings shall be installed 2' o.c. along channel as directed by the field engineer.
C. Cuttings and Installation shall only be made during the willow's dormant season (December through February)
D. Willow cuttings shall be made according to SCVWD speciifications.

# APPENDIX D
# DISTRICT NESTING BIRD GUIDELINES

# SANTA CLARA VALLEY WATER DISTRICT
# ENVIRONMENTAL RESOURCES MANAGEMENT UNIT

# NESTING BIRD GUIDELINES 2000-2001

**DRAFT**

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## PURPOSE

To establish District guidelines for implementing stream stewardship policy as it relates to avian resources by describing the process and responsibilities of the District has regarding the *Migratory Bird Treaty Act of 1918* and other local, state and federal statues, ordinances and regulations, as they relate to nesting birds.

## POLICY

It is the policy of the District to act as stream stewards by protecting the watersheds, streams and the natural resources therein. As part of its stream resources stewardship, the District recognizes that it has responsibilities for managing avian resources. Management of avian resources includes measures to protect birds, their nests, and eggs. This builds on the District's continuing efforts to improve stream resources and to comply with local, state and federal environmental laws.

## SCOPE

This procedure provides guidelines to be followed by the District to protect birds nesting at district facilities and at District project sites. It defines the role and responsibilities of staff in planning, permitting, and implementing measures for managing avian resources. These measures facilitate the timely completion of District projects and activities while protecting avian resources.

## DEFINITIONS

***Project site.*** This includes all areas where District employees or contractors perform work. This includes, but is not limited to the area identified as the work site in project plans, access routes, staging areas, structures, and areas immediately adjacent.

***Nesting areas.*** Birds nest in nearly all conceivable places and situations which, include open water, bare ground, stream banks, grass and weeds, cattails and bulrush, shrubs, trees, buildings, bridges, and drain pipes.

***Nesting season.*** Nesting activity occurs in the Santa Clara Valley between February 1st to July 1st except in areas with tidal influence or emergent vegetation the season is extended to August 31. The peak of this activity is between March 15th and July 1st. Annual variation in climatic conditions can alter these periods by several weeks.

***Active nest.*** An active nest is any nest structure, which is being used by adult birds and is at least ½ completed, contains eggs, or nestlings. Active nests also include permanent nest structures such as those made by herons, egrets, and birds of prey. Nests are considered active until young birds leave the nest and the immediate area surrounding the nest. Some birds may nest multiple times in the same nest within a season, nests of these species are considered active during nest construction, repairs or courtship behavior is observed.

***Take of birds, their nests, eggs, or young.*** Under Migratory Bird Treaty Act, take is interpreted as the actual destruction of adult birds, their nests, eggs, or young. Penalties can include fines and imprisonment. The District will not knowingly conduct any activity that will lead to the take of live birds or active nests. District employees shall contact biologists and follow the guidelines described in *Protection of nests* (see PROCEDURES, below) when an active nest is known to be present or if one is encountered.

***Biologists*** A qualified biologist is a person properly trained in the detection of nesting birds within the habitat type being surveyed. The biologist will have knowledge of the identification, nesting habits and behaviors of local bird species. The biologist can identify local birds and their nests by sight. They should have recent experience conducting nest searches and be familiar with District breeding bird survey protocols (see ATTACHMENT B).

## PROCEDURES

The District will attempt to protect avian resources through a series of steps in the course of a project. We will attempt to avoid impacts through avoidance of nesting areas and the *nesting season*. When this is not possible or not practical we will incorporate preventative measures in the project design. When *preventive measures* cannot be incorporated or there is the continued possibility of nesting birds, *pre-construction surveys* shall be conducted. If these measures fail and birds nest at a *project site*, actions shall be taken to ensure that the nest is not destroyed by district activities. If a nest is destroyed, it will be reported to appropriate agencies.

The *project site* will be considered to have an "active nest" if, the following conditions exist as determined by the biologist:

a. If the entire project site or structure can be visually inspected and a nest which is at least ½ completed is found or,
b. If the observer is unable to inspect the entire project site and "probable", or "confirmed" breeding behaviors are observed, and a second visit within one week detects "confirmed" behaviors (see ATTACHMENT C).
c. If the observer encounters Burrowing Owls displaying courtship behaviors.

### Planning and Design

District biologists should be consulted early in the planning process to assess projects planned during the nesting season in and adjacent to channels, creeks, streams, reservoirs, floodplains, percolation ponds, pipelines, grasslands, roads and other outdoor facilities, for their potential impacts.

As part of the environmental review process site surveys should be conducted at the appropriate time of year by biologists. The environmental review process will identify potential impacts to avian resources and identify *preventive measures*.

The District Biologist should be informed of pre-construction meetings that pertain to activities that could impact avian resources and be informed of substantial changes made to the project work area or work involving removal of trees or brush.

***Preventive measures*** When possible, projects with potential impacts to nesting birds should be scheduled before or after the *nesting season*. If this is not possible, *preventive measures* should be taken to reduce the possibility of nesting at the proposed work areas. Additionally, *pre-construction surveys* should be planned within 2 weeks before the initiation of work during the ***nesting season.***

Preventive measures include any technique that will discourage birds from nesting at project sites or will remove potential nesting sites. This includes, but is not limited to, removal of vegetation that will be removed as part of the project prior to beginning the project and the use of deterrents to discourage birds from nesting.

District biologists and environmental planners should be consulted in the development of site and project specific preventive measures. Preventive measures will be described in environmental documents. Authorization to implement preventive measures may be needed from other agencies. In situations requiring site specific measures at the time of construction, project biologists will work with responsible field personnel to develop site specific measures. District personnel, construction contractors or a knowledgeable pest/animal control contractor should implement preventive measures.

If preventive measures are needed to prevent nesting, they should be in place and completed prior to February 1st. Responsibility for installation and removal of these measures will be described in writing by the project manager. All materials used in these efforts must be maintained to prevent nesting and removed when necessary to complete project activities. All materials will be removed from the site at the completion of the project.

## Project Implementation

***Pre-construction Surveys*** A pre-construction survey is necessary under the following conditions:

a. If work is conducted during the *nesting season.*
b. If work involves removing or trimming large trees during the *nesting season*.
c. If nesting has been recorded before or after the *nesting season* in previous years at or near the site.
d. If work involves earthmoving operations, or the removal or trimming of vegetation during the *nesting season.*

Pre-construction surveys for nests should be performed within two weeks of the project start date by a Biologist or other appropriately trained personnel designated by the biologist (contact Biologist for necessary training requirements). The Biologist will report the findings to responsible field personnel.

This will include descriptions, or maps of areas where work should be avoided as well as written descriptions of all measures that should be taken in order to protect the nests.

Pre-construction surveys for nests will be conducted according to the protocols described in Attachment B.

***Protection of nests.*** What is required for the protection of active nests may vary depending on the situation and the species involved. This will be determined by the Biologist. These are general guidelines to be followed by the workers and responsible field personnel when a active nest is encountered:

a. Contact project biologists immediately.
b. Only authorized and permitted biologists should approach or touch the adults, nest, and eggs.
c. Until inspected by a biologist, a 50-foot radius should be established around the nest, a 250-foot radius in the case of hawks, owls, heron and egrets. The biologist may modify these perimeters once the site is inspected
d. If work must be done within this 50-ft radius prior to inspection by the project biologist, it should be limited to less than one hour duration. The biologist may modify this schedule once the site is inspected
e. Responsible field personnel will inform workers of the presence of a nest and steps described above to avoid it.
f. In cases where birds build nests on a project site during project construction activities are taking place, the nest and its contents should be protected from destruction and the biologist should be contacted.
g. Project biologists, following site inspection may introduce additional measures to protect the nests. These measures must be approved by responsible field personnel.

These steps are initial steps that should be taken by the workers and responsible field personnel. The biologist may modify these steps and introduce additional measures to protect the nest if they are needed to ensure the adults and nest contents will not be destroyed.

For contracted projects, the biologists will discuss the situation only with responsible field personnel. It will be the responsible field personnel's responsibility to ensure that all guidelines are followed by District employees and contractors.

### *If a nest is destroyed*

If a nest is destroyed, despite these measures, the nest and its contents should not be touched or moved. The biologist and project manager should be contacted immediately by responsible field staff.

**ATTACHMENT A: Design specifications**:

The following statements should be attached to contract design specifications.

No bird, their active nest, or eggs or will knowingly be harmed during the course of this project. If active nests, eggs or young are found at a project site a District biologist will be notified immediately and procedures outlined in *Protection of nests* (see NESTING BIRDS GUIDELINES 2000-2001) will be followed.

If an active nest or birds displaying behaviors indicative of nesting (see NESTING BIRDS GUIDELINES 2000-2001: ATTACHMENT C) are observed, protective measures outlined in *Protection of nests* (see NESTING BIRDS GUIDELINES 2000-2001) may be implemented to protect active nests and/or work will be delayed until the nest is complete.

A pre-construction survey should be conducted by a biologist if the project meets criteria described in *pre-construction surveys* (see NESTING BIRDS GUIDELINES 2000-2001).

District biologists shall be informed of pre-construction meeting which deal with issues pertaining to nesting birds.

If preventive measures are needed to prevent nesting, they should be in place and completed prior to February 1st. Responsibility for installation and removal of these measures will be described in writing by the project manager. All materials used in these efforts must be maintained to prevent nesting and removed when necessary to complete project activities. All materials will be removed from the site at the completion of the project.

## ATTACHMENT B: BREEDING BIRD SURVEY PROTOCOL

- Sites should be checked within 4 hours of sunrise or within 2 hours of sunset. Exceptions to this are roads, gravel beds, grasslands, sites without vegetation, bridges, buildings, overpasses, and culverts.

- Surveys should not be conducted during periods of inclement weather, unusually warm or cold weather or when wind speed exceeds 12 mph.

- The surveyor should choose an observation area with a good field of view and complete Step 1. Observations should be made for a minimum of 15 minutes (for small sites with little cover), 30 minutes may be appropriate for more complex sites. The surveyor may need to do this several times depending upon the length of the site.

- After passive observation, the surveyor should walk the entire site and complete the species list.

- Once all potential breeders are identified and possible nesting sites located, the surveyor should proceed with step 2.

### Step 1. General Species List

- List all species of birds found to the lowest possible taxonomic level.
- Identify and count each individual.
- Note any breeding behaviors (see *Breeding Codes*); take detailed notes.
- Describe locations of all breeding behaviors (see *Breeding Codes*).

### Step 2. Search habitat using appropriate methods.

- Each habitat type is going to be different, the observer should determine what types of birds are at the site, then search appropriate locations for active nests (i.e. if Bullocks Orioles are found, inspect trees and tall shrubs for hanging nests, if Killdeer are found search gravel and dirt substrates for ground nests).

- For larger areas, the surveyor will identify likely nesting areas and searching them thoroughly. These include such areas as gravel bars, under man-made structures, trees, large shrubs, shelves on banks, cavities in banks and trees.

- For smaller sites, the observer may use a spotting scope to scan the entire potential nesting area.

- In Grasslands, the site will be searched by "rope dragging", "sticking" or "stalking." (see *Grassland Nest Survey Protocol*).

- When active nests are found, the observer will not approach the nest. They should attempt to: 1) identify what species the nest belongs to, 2) what stage is the nest at (eggs, nestlings, construction, incubating adult), and 3) map and describe the location of the nest. Additional notes such as number of eggs/nestlings and descriptions of the nestlings will be taken when possible, but the nest should not be disturbed to obtain information.

## ATTACHMENT C: CRITERIA FOR DETERMINING NESTING STATUS

### Possible (PO)

E

Individual(s) encountered in suitable breeding habitat within safe-date period. Be especially careful during the migration period (especially in riparian zones) not to count birds that may be passing through or birds anywhere that may linger in wintering areas.

S

Singing male encountered in suitable breeding habitat within safe-date period.

### Probable (PR)

M

Multiple singing or territorial males reported within a project site within one day. (Indicate the number when you use this code: if you hear eight males singing, enter M-8 on the Field Card.)

A

Agitated behavior or anxiety calls from adult. (Do not include agitation which you induce by "pishing" or using taped calls.)

P

Pair observed in suitable breeding habitat within safe-date period. (Be aware that some species, e.g., ducks, may be paired during migration.)

T

Territorial behavior (chasing of individuals of same species) or singing male present at least two dates seven or more days apart. (Use caution for species such as raptors and hummingbirds that exhibit territorial behavior in defense of feeding areas, favorite perches, etc., while wintering or migrating.)

C

Courtship behavior (including food exchange) or copulation observed.

N

Visiting probable nest site (especially cavity nesters), with no further information obtained.

B

Nest building by Bewick's, House or Marsh wrens (which may build several nests before a female selects one), or excavation by woodpeckers (see NB below).

### Confirmed (CO)

NB

Nest building, or a bird carrying nest materials (except for the above-mentioned wrens, and woodpeckers).

DD

Distraction display; defense of unobserved nest or young by injury feigning. A common behavior among ground-nesters (e.g., the Killdeer broken-wing display), and also includes active defense such as hawks diving at you. Does not include agitated behavior (Code A under PR above.)

ON

Occupied nest (nests in holes or banks, high nests, etc., where contents are uncertain). Indicated by adult entering or leaving nest site in circumstances indicating an occupied nest.

FL

Recently fledged young of species incapable of sustained flight or downy dependent young of limited mobility.

FS

Adult carrying fecal sac.

FY

Adult carrying food for young, or feeding recently fledged young. A bird feeding a fledgling cowbird confirms both the cowbird and the host.

NE

Nest with eggs, or with eggshells on ground. Use the same cautions as with code UN above. A nest with cowbird eggs confirms both the cowbird and the host.

NY

Nest with young seen or heard. Use when you can actually see the young, or if (as with cavity nesters) you only hear the young. A cowbird chick confirms both the cowbird and the host.

**ATTACHMENT D: GRASSLAND BIRD SURVEY PROTOCOL** (adapted from Grassland Research Project by Jennifer Nesbitt, University of Illinois at Champaign-Urbana)

A. Rope Dragging: Use this technique in fields with short to medium grass height and containing few, if any, shrubs. Two people drag a 50' or 30' foot rope across a field, an observer follows behind to watch for birds flushed from their nests. The rope passes directly over the low nest without harming either its contents or the incubating adult. This technique is most effective for species that will flush directly off their nests.

B. "Sticking": In fields with shrubs that will snag the rope, employ meter sticks as nest-searching tools. Observers walk back and forth across a field in a line, swinging the meter stick in an arc across the grass and gently prodding small shrubs. Human footsteps and the motion of the sticks serve to flush incubating birds. This method is effective for shrub-nesting species, hard-to-find species, and those species that also are found by rope-dragging. For both of these search methods, a bird flushed off its nest will return to it soon after the observers leave the area.

C. Stalking: Some species will flush off their nest and run through the grass before they fly into the air. Often, these nests are well-concealed and cannot be found without knowing their precise location. The best way to find these nests is to follow the birds. Feeding adults or an incubating female will reveal the location of a nest if they are watched patiently from a distance.

# LETTERS AND COMMENTS

# COMMENT LETTERS AND RESPONSES

COMMENTS AND RESPONSES TO ROBERT WALLACE LETTER ........
    ROBERT WALLACE LETTER ........ Received 2/19/02

COMMENTS AND RESPONSES TO STREAMS FOR TOMORROW LETTER
    STREAMS FOR TOMORROW LETTER ........ Received 2/22/02

DEPARTMENT OF TRANSPORTATION LETTER ........ Received 2/25/02

COMMENTS AND RESPONSES TO CITY OF MOUNTAIN VIEW LETTER
    CITY OF MOUNTAIN VIEW LETTER ........ Received 2/26/02

COMMENTS AND RESPONSES TO DEPARTMENT OF FISH AND GAME LETTER
    DEPARTMENT OF FISH AND GAME LETTER ........ Received 2/28/02

# ROBERT E. WALLACE COMMENTS AND RESPONSES

## Comment 1:

After studying the proposed plans and looking at the site, I would like to propose an alternative design for modifying the drop structure where Stevens Creek approaches the Highway 85 bridge over the Creek. The purpose of this structure is to afford a means for fish to pass upstream beyond the present barrier.

My alternate proposal is as follows:
Remove only the three dam barriers in the channel and the concrete slab between the upper and middle barriers. Leave the lower slab in place as well as the present 1:1 bank structures on both sides of the creek (I believe that leaving the side walls as they are would not destabilize them). Follow this by grading creek gravels from 300ft. upstream of the upper barrier to the toe of the lower slab; I calculate the grade of these gravels would be 1.9%. The broken concrete and excess gravel would be moved to fill the 4ft. drop at the downstream end of the Highway 85 underpass; this should then be graded out downstream for several hundred feet to allow easy fish passage. This proposal would more closely approach a restoration of the original creek bottom as well as being far less expensive.

## Response 1:

Removing the barriers, concrete aprons, and grading the gravel bottom to conform to the existing creek approximately 300 feet upstream will destabilize the existing steep channel banks by deepening the channel bottom by up to 3 feet. Concrete side slope lining with surcharge loading and lateral soil pressure acting on it require footing to prevent it from sliding and overturning. If the existing concrete slab inverts are removed, the 1:1 side slope concrete lining will no longer be rigid and eventually fail, which will leave the steep earth banks unprotected from high velocity flow. Failure of the side slope concrete lining will erode the steep banks and endanger the Stevens Creek Trail and Highway 85 Bridge.

Broken concrete is not suitable material to deposit within a creek. Department of Fish and Game would not permit concrete rubble to be dumped into an active creek channel. The loose material may also be transported farther downstream during high flow events. Gravel replenishment in creeks that support steelhead would have permit conditions to specify the source, size, and type of gravel suitable for the fish.

The proposed project scope is to modify the barrier to fish that is located upstream of Hwy 85. Restoration of Stevens creek for fish passage, through the modification of other fish barriers, is a separate project and that is being analyzed through the Fisheries and Collaborative Habitat Effort.

**Comment 2:**
Apparently fish are now able to migrate upstream from the Bay on natural (more or less) creek gravels, and with sufficient modification of the drop structure area could continue their migration above the Highway 85 underpass; why not make the creek bed at the modification as similar as possible to the rest of the gravelly creek bed?

**Response 2:**
Concrete (or hard) lining with a weir structure is required at the Stream Gage Station location to protect the communication pipes and enable stable control data readings. The current weir structures are fish barriers, which need modifications to allow for fish passage. Examples of project modifications are resting pools with sufficient depth and length for fish to have a sufficient swim distance in order to jump and facility design to concentrate flows which allow for fish passage during low flows.

Stevens Creek is designated as critical habitat for the steelhead trout (U.S. Fish and Wildlife Service.) Any work done within the creeks is subject to review and permits from the Department of Fish and Game (DFG) and National Marine Fisheries Service (NMFS). The District has been working with these agencies throughout the planning and design process for this project. The proposed project design is the result of this collaborative effort and has been approved by DFG and NMFS. In fact, DFG has determined this project worthy enough to receive a grant.

**Comment 3:**
I estimate my proposal would take no more than two weeks, at an actual labor and equipment cost of about $10,000-rather than $3.1million. Very little-if any-additional material would be needed (all the loose concrete sacks and chunks of concrete float could be used to fill the downstream drop, thereby helping to clean up the creek). The site at present is not exactly a thing of beauty, but it certainly would not be improved by the current modification design.

**Response 3:**
Construction cost of the current project is approximately $1.4 million. Partial funding for the project is being provided by a Department of Fish and Game SB 271 Grant (for the project's benefit to fish passage for steelhead.)

The straight forward approach that you describe would result in the construction costs being far less than we estimate. However, we are unable to approach the project in such an efficient manner. The cost of a project is determined primary by project design and the public works standards, laws and process we must follow. The design is dictated by engineering standards along with the physical constraints associated with the project site.

The four major site considerations are the Highway 85 bridge, the velocity of the storm flows, the existing District's stream gage, allowable fish jumping height.

The existing drop structure provides creek bed stability and therefore protection for the Highway 85 bridge abutments. We are obligated to provide the same creek bed stability with our project as there was prior to our project. The stream flows in the smaller storm events average 8 feet per second (fps) up to 11.3 fps during larger storms. To prevent erosion and therefore protect the pedestrian trial and the Highway 85 bridge, the side slopes need to be protected as they are now (concrete or sack-crete).

A controlled flow through an upstream pool is needed to provide a rating curve for our stream gage. This necessitates a uniform weir section at the upstream end of the project. It would be undesirable for the fish to manage a steep channel following the weir section. We have therefore designed a series of weirs to serve as a fish ladder. The fish ladder jumping height has been designed to be 0.86 feet (10.3 inches). This resulted in the current project that has four vortex weirs with a preceding resting/jumping pool.

These constraints lead us to the current design, which is the basis of the majority of our construction costs.

The District as a public works organization has to follow certain procedures and standards for bidding construction projects. As such we require the contractor to have various bonds, insurances and to conform to federal and state laws and standards (workers compensation, OSHA, etc.). These items are hidden costs that are not seen when a contractor bids a project but are a significant portion of the price of the project.

Although the ease of your construction method is appealing, as a public works agency we must address all issues, constraints and requirements in a project's design and subsequent construction. The construction cost of 1.4 million dollars for this project is reflected in all of the items mentioned above.

**Comment 4:**
I would appreciate reviewing the suggestions with your staff. I would be pleased to attend any discussion of this proposal.

**Response 4:**
Staff is in the process of coordinating a date with Mr. Wallace for a meeting to discuss his proposal and staff responses.

12881 Foothill Lane
Saratoga, CA 95070
Phone/FAX 408-867-4576

19 February, 2002

Greg Zlotnick
Director, Region 5
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3614

Subject: Stevens Creek Drop Structure Modification

After studying the proposed plans and looking at the site, I would like to propose an alternative design for modifying the drop structure where Stevens Creek approaches the Highway 85 bridge over the Creek. The purpose of this structure is to afford a means for fish to pass upstream beyond the present barrier.

My alternate proposal is as follows:
Remove only the three dam barriers in the channel and the concrete slab between the upper and middle barriers. Leave the lower slab in place as well as the present 1:1 bank structures on both sides of the creek (I believe that leaving the side walls as they are would not destabilize them). Follow this by grading creek gravels from 300ft. upstream of the upper barrier to the toe of the lower slab; I calculate the grade of these gravels would be 1.9%. The broken concrete and excess gravel would be moved to fill the 4ft. drop at the downstream end of the Highway 85 underpass; this should then be graded out downstream for several hundred feet to allow easy fish passage. This proposal would more closely approach a restoration of the original creek bottom as well as being far less expensive.

Apparently fish are now able to migrate upstream from the Bay on natural (more or less) creek gravels, and with sufficient modification of the drop structure area could continue their migration above the Highway 85 underpass; why not make the creek bed at the modification as similar as possible to the rest of the gravelly creek bed?

I estimate my proposal would take no more than two weeks, at an actual labor and equipment cost of about $10,000-rather than $3.1million. Very little-if any-additional material would be needed (all the loose concrete sacks and chunks of concrete float could be used to fill the downstream drop, thereby helping to clean up the creek). The site at present is not exactly a thing of beauty, but it certainly would not be improved by the current modification design.

I would appreciate reviewing the suggestions with your staff. I would be pleased to attend any discussion of this proposal. Thank you for your interest.

Sincerely,
*Original signed by*
Robert E. Wallace

# STREAMS FOR TOMORROW COMMENTS AND RESPONSES

**Comment 1:**

We commend the District for addressing fish passage needs at Stream Gauge 35. Although the proposed facility will provide streamflow gauging and grade control benefits, fish passage will be a basic purpose and benefit of the new structure. It will be a fish passage facility. As with any fishway, the structure will continue to provide the intended fish passage only if it is properly inspected and maintained to ensure clearance from obstruction and debris and proper operation. We note the IS/MND does not describe facility inspection and maintenance requirements. These requirements should be described in the Final IS/MND.

**Response 1:**

All District facilities, including those for fish passage, are inspected twice per year at the following times; one inspection prior to June 15 and another prior to December 15, to ensure that facilities are operating effectively. If a site is found to need maintenance the inspector will notify the watershed manager who will then determine the appropriate course of action. Text has been modified to clarify include this language in the *Project Description* under *Project Operation.* The facility (vortex weirs) will be kept free of debris and excess sediment to prevent vegetation growth and impairment of fish passage.

**Comment 2:**

The IS/MND fails to discuss post-construction evaluation of the fish passage facility. Such monitoring is essential to determine the effectiveness of fish passage and assure the intended facility operation and results. The Final IS/MND should include a District commitment to observe and measure hydraulic and fish passage conditions at the structure in order to document that the facility operates as designed. The District must commit to implementing contingency actions if problems occur, such as a failure to develop scour pools between the weirs or a failure to maintain pools due to leakage.

**Response 2:**

Post-construction evaluation for fish passage effectiveness will be limited to visual observations as USFWS permits (for use by fisheries biologists) pertaining to steelhead are on hold statewide. Biologists cannot perform any physical method of monitoring which may harm the fish. The District is committed to each of its facilities operating efficiently and effectively, and if necessary, the associated maintenance or contingency actions to make that possible. Also see Response 1. The facility was specifically designed to function within the hydraulic conditions of the project reach in Stevens Creek with Department of Fish (DFG) and Game and National Marine Fisheries (NMFS) input and review for adequate fish passage.

**Comment 3:**

In addition, the District should commit to performing biological assessments to confirm that the facility is providing successful steelhead passage. As in the case with other District fishway projects, the District should commit to performing passage monitoring for up to five years after completion of the facility. If passage objectives are not met, and it is not due to factors beyond the District's control, remedial actions would be initiated and monitoring continued. The Final

IS/MND should include a District commitment to steelhead passage biological assessments and a commitment to remedial actions if and when necessary.

**Response3:**
See Response 1 and 2.

**Comment 4:**
MND page 1: The extent of the project is described as an approximately 90 linear foot section of creek; whereas, it is described as a 135-foot section of creek on IS page 2-5. The MND description should be corrected.

**Response 4:**
Comment noted and text has been changed.

**Comment 5:**
IS page 2-4, "The Project Description": The IS fails to provide the public and decisionmakers with an adequate and reasonable complete project description. The referenced "proposed project plans" to be found in Section 6 are, in fact, not included in the document. No project plans, conceptual drawings, nor schematic diagrams are provided to help the reader understand the design and configuration of the proposed concrete gauge and multiple-weir structure. Descriptions of project design components are scattered throughout the IS, rather than in one "Project Description" summary section. This deficiency should be corrected in the Final IS/MND, at least by providing the missing project plans.

**Response 5:**
The reference to "proposed project plans' has been deleted in the text. Per your phone request, a draft cross section and plan view drawing was sent to you during the public comment period. These draft project plans were also displayed at a neighborhood meeting on February 5th. The text description of the project in the IS/MND provides the reader with adequate information to understand the project. Additionally, a simulation (drawing) depicting the finished project is being prepared for the neighborhood pre-construction meeting. The document adequately addressed the project design components in the Project Description thus, a summary section will not be included in the Final IS/MND. Staff would be happy to meet with you individually to discuss. Please call Melissa Dargis, Environmental Planner at 408-265-2600.

**Comment 6:**
IS page 2-4, "Work Schedule and Timing": The start date for construction activity in the channel should be corrected to read June 15 to be consistent with BMPs and the MND.

**Response 6:**
Although the District normally adheres to the 6/15 to 10/15 window for stream work on most of its salmonid streams, Stevens Creek at the project location drys completely in most years by mid-May. In 1999 and 2000 the stream was dry by May 1. Because of these conditions, the District does not believe a 6/1 construction start date will have any affect on steelhead smolt out-migration, or summer-rearing juvenile steelhead. If stream flow is occurring at the end of May

in the 2002 construction year, the District will work with DFG and other resource agencies on a construction plan to insure there are no impacts to steelhead.

**Comment 7:**
IS page 2-4: "Control of Water During Construction": According to the IS, "water that accumulates in the construction zone will be removed so that work can be performed under dry conditions." The method of removal and disposal is not identified. On IS page 4-13, the IS states : "During construction, water from Stevens Creek *and groundwater encountered during excavation will rout around the construction.*" (emphasis added). This statement implies that excavation groundwater may be discharged to Stevens Creek. Such an event would adversely impact stream water quality, and be contrary to BMP Number 1.12. The quoted statements from pages 2-4 and 4-13 should be revised to state that groundwater from the work area will not be discharged to the stream, and will be disposed of per BMP Number 1.12.

**Response 7:**
Comment noted and text changed.

**Comment 8:**
IS page 2-8, "Additional Best Management Practices...": Table 1 is missing from the IS. We suggest reference to Table 1 be changed to Appendix A instead. (Note that existing Table 2 would then become Table 1).

**Response 8:**
Comment noted and text changed.

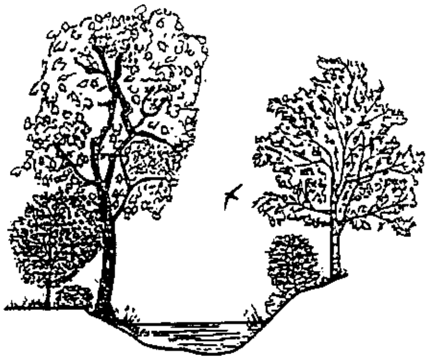
**Comment 9:**
IS page 4-19, Mandatory Findings...b": The IS recognizes that additional hardscape will increase stream velocities during high flow events by 4 to 6%, and concludes that these increased velocities are not substantial enough to impact migrating fish. To adequately evaluate this conclusion, corresponding velocity information is needed. Please identify the velocities (in feet per second) for the described "high flow events" and the projected 4 to 6% velocity increases.

**Response 9:**

The velocity change at 1.5 year flow for Stevens Creek Project Site is:

Existing: 7.31ft/sec
Proposed: 7.66 ft/sec

*SANTA CLARA COUNTY*
*STREAMS FOR TOMORROW*
*Post Office Box 1409*
*San Martin, California 95046*



February 22, 2002

**VIA FAX TO: (408) 266-0271**

Mr. Gordon Lau
Project Manager
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Dear Mr. Lau:

**Stevens Creek Drop Structure Modification**
**Draft Initial Study and Mitigated Negative Declaration;**
**Dated January 28, 2002**

We have the following comments for your consideration on the subject Draft Initial Study (IS) and Mitigated Negative Declaration (MND):

1. We commend the District for addressing fish passage needs at Stream Gauge 35. Although the proposed facility will provide streamflow gauging and grade control benefits, fish passage will be a basic purpose and benefit of the new structure. It will be a fish passage facility. As with any fishway, the structure will continue to provide the intended fish passage only if it is properly inspected and maintained to ensure clearance from obstruction and debris and proper operation. We note the IS/MND does not describe facility inspection and maintenance requirements. These requirements should be described in the Final IS/MND.

2. The IS/MND fails to discuss post-construction evaluation of the fish passage facility. Such monitoring is essential to determine the effectiveness of fish passage and assure the intended facility operation and results. The Final IS/MND should include a District commitment to observe and measure hydraulic and fish passage conditions at the structure in order to document that the facility operates as designed. The District must commit to implementing contingency actions if problems occur, such as a failure to develop scour pools between the weirs or a failure to maintain pools due to leakage.

3. In addition, the District should commit to performing biological assessments to confirm that the facility is providing successful steelhead passage. As in the case with other District fishway projects, the District should commit to performing passage monitoring for up to five years after completion of the facility. If passage objectives are not met, and it is not due to factors beyond the District's control, remedial actions would be initiated and monitoring continued. The Final IS/MND should include a District commitment to steelhead passage biological assessments and a commitment to remedial actions if and when necessary.

4. MND page 1: The extent of the project is described as an approximately 90 linear foot section of creek; whereas, it is described as a 135-foot section of creek on IS page 2-5. The MND description should be corrected.

5. IS page 2-4, "Project Description":The IS fails to provide the public and decisionmakers with an adequate and reasonably complete project description. The referenced "proposed project plans" to be found in Section 6 are, in fact, not included in the document. No project plans, conceptual drawings, nor schematic diagrams are provided to help the reader understand the design and configuration of the proposed concrete gauge and multiple-weir structure. Descriptions of project design components are scattered throughout the IS, rather than in one "Project Description" summary section. This deficiency should be corrected in the Final IS/MND, at least by providing the missing project plans.

6. IS page 2-4, "Work Schedule and Timing": The start date for construction activity in the channel should be corrected to read June 15 to be consistent with BMPs and the MND.

7. IS page 2-4, "Control of Water During Construction": According to the IS, "water that accumulates in the construction zone will be removed so that work can be performed under dry conditions." The method of removal and disposal is not identified. On IS page 4-13, the IS states: "During construction, water from Stevens Creek *and groundwater encountered during excavation will rout around the construction zone*." (emphasis added). This statement implies that excavation groundwater may be discharged to Stevens Creek. Such an event would adversely impact stream water quality, and be contrary to BMP Number 1.12. The quoted statements from pages 2-4 and 4-13 should be revised to state that groundwater from the work area will not be discharged to the stream, and will be disposed of per BMP Number 1.12.

8. IS page 2-8, "Additional Best Management Practices ...": Table 1 is missing from the IS. We suggest reference to Table 1 be changed to Appendix A instead. [Note that existing Table 2 would then become Table 1]

9. IS page 4-19, Mandatory Findings ... b": The IS recognizes that additional hardscape will increase stream velocities during high flow events by 4 to 6 %, and concludes that these increased velocities are not substantial enough to impact migrating fish. To adequately evaluate this conclusion, corresponding velocity information is needed. Please identify the velocities (in feet per second) for the described "high flow events" and the projected 4 to 6 % velocity increases.

Thank you for the opportunity to comment on the subject Draft IS/MND. If you have questions about our comments, please contact me at the letterhead address or telephone number (408) 683-4330 (voice and fax). Please send us a copy of the Final IS/MND.

Sincerely,

Keith R. Anderson

Keith R. Anderson
Environmental Advocate

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

**DEPARTMENT OF TRANSPORTATION**
P. O. BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
(510) 286-4454 TDD

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February 21, 2002

SCL-85-22.63
SCL085143
SCH 2002012097

Ms. Melissa Dargis
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Dear Ms. Dargis:

**Stevens Creek Drop Structure Modification – Initial Study/ Mitigated Negative Declaration (MND)**

Thank you for including the California Department of Transportation in the environmental review process for the proposed project. We have reviewed the MND and are satisfied with the document.

Should you require further information or have any questions regarding this letter, please call Maija Cottle, of my staff at (510) 286-5737.

Sincerely,

Jean CR Finney

JEAN C. R. FINNEY
District Branch Chief
IGR/CEQA

c: Katie Shulte Joung (State Clearinghouse)

*"Caltrans improves mobility across California"*

# CITY OF MOUNTAIN VIEW COMMENT LETTER WITH RESPONSES

## Mitigated Negative Declaration, Findings

### Comment 1:

Page 1—Somewhere in the Findings, the District must address how they will mitigate damages to existing landscaping around the stream gauge being removed as part of the project.

### Response 1:

No landscaping will be disturbed during removal of stream gauge housing. After removal, area will be filled to match contour of surrounding slope. Please see attached photo on page 13. Ceanothus will be planted to fill the void created by removing the housing.

Upon recommendation of District revegetation specialists and due to the small quantity of plants needed for the mitigation site. In lieu of a formal revegetation plan, plant locations will be flagged by District staff and inspected upon installation per mitigation measure # 1. After installation, locations will be recorded and mapped for accurate reporting during 2 year inspection-monitoring period.

### Comment 2:

Page 2, Item 1—A statement should be included that the District will be responsible for maintaining the new plants. Also, the District may want to reevaluate their choice of location for the mitigation planting. Is the District considering the fact they will be planting in an area used historically by the District for creek access? If it is planted as proposed in this document, that access will no longer be available to the District. In the last sentence of this paragraph, the District mentions the revegetation plan will be prepared by the District prior to installation. The revegetation plan should be included as part of the contract documents for the Drop Structure project.

### Response 2:

The District is responsible and will ensure that the contractor complies with mitigation measures to install and maintain plantings. The area designated for mitigation planting is not District easement or access for our maintenance crews. District has easement slightly further upstream which it uses for access. Please note Response 1 for detail regarding revegetation plan.

### Comment 3:

Page 2, Item 2—It is not clearly stated if any trees will be planted on the west bank once the access road is removed and the area is regraded. The District states the temporary access road will be replanted with landscaping plantings lost at the top of the berm, but it does not state if any trees will be replaced on the mid and lower parts of the slope.

Also, the wording is not clear on the replanting plan and might be interpreted that there will just be erosion control blankets and hydroseeding in that area. The City requests trees, blankets and hydroseeding and any other appropriate measures for adequate mitigation. The revegetation plans should be included as part of the bid documents for the drop structure project.

**Response 3**

Mitigation measure #2, page 2, refers to Appendix C, "Revegetation Plan for Temporary Access Road." This plan indicates that 2 coast live oaks and 8 black cottonwoods (or cuttings) will be planted on the mid to lower bank in addition to hydroseeding and erosion control blankets. Appendix C is also included in the plans and specifications. Text has been edited to clarify reference and contents of Appendix C.

**Comment 4:**

Page 3, Item 2, Continued—It should be made clear that the District will be responsible for the "Dri-Water" irrigation of the new plants for the entire plant establishment period.

**Response 4:**

Please see Response 2.

**Comment 5:**

Page 3, Item 4—On the fourth line, these words appear: "...and to protect from damage any subgrade irrigation installation belonging to either the District, City of Mountain View, ..." A note should be added stating the City will be notified of any damage and repairs/replacements made to City Standards. Also, Mountain View is misspelled.

**Response 5:**

The following language added to the text, "District will notify City of Mountain View should any damage occur to subgrade irrigation system and replacement would be made to City standards."

Comment noted and text changed.

**Comment 6:**

Page 4, Item 5, Continued—The first sentence of the second paragraph refers to "right-of-way." What this refers to should be clarified.

**Response 6:**

Text has been modified to delete reference to right-of-way and now reads, "Contractor shall notify… if any woody plants are damaged…"

**Comment 7:**
Page 4, Item 6—The report sites preconstruction surveys to look for nesting birds but does not indicate the nesting season for the birds most likely to be encountered. Please add this language to the report, possibly in Section 4, Environmental Evaluation, Page 10, Item d.

**Response 7:**
Item 6 references Appendix D, the District's Nesting Bird Guidelines. This document covers survey protocol for all avian resources. The guidelines provide nesting season dates of February 1 to July 1, except in areas with tidal influence or emergent vegetation the season is extended to August 31. The nesting peak season is March 15 to July 1.

## Section1—Introduction

**Comment 8:**
Page 3, City of Mountain View—The wording in this section should more clearly state that the District will be operating in full compliance with all City ordinances and requirements, including, but not limited to, the Heritage Tree Ordinance, securing a Temporary Use Permit and "Agreement for Temporary Access Across City Lands and the Encroachment on Public Right-of-Way at the Terminus of Central Avenue" and requiring its contractors to secure City Transportation Permits. The District should be fully aware of the applicable ordinances and requirements. Please contact me if any reiteration of this information is needed or if the District would like additional copies of documents detailing those requirements.

**Response 8**
The following text change has been added. The District and City of Mountain View are in the process of negotiating a Joint Use Agreement for temporary access across City lands and encroachment on public right-of-way for this project.

Mitigation measures have been incorporated into the project to address any impacts to trees and other vegetation, including City of Mountain View heritage trees.

## Section 2—Project Description

**Comment 9:**
Page 4, Work Schedule and Timing—Wording in this paragraph states project construction will occur Monday through Friday, 7:30 a.m. to 6:00 p.m., but the District is aware this time could be reduced to end at 4:00p.m. if neighbor complaints cannot be adequately addressed. Also, truck hauling will be limited to 9:00a.m. to 4:00p.m. This paragraph should make mention that land uses adjacent to this project are residential and the City is requiring the District to notify owners and tenants whose access includes Central Avenue, as shown on the exhibit entitled "Central Avenue" attached to this letter.

**Response 9:**
Section 4.11 addresses noise complaints and schedule. Section 4.15 explains that truck trips will take place during off-peak commute hours. The attached exhibit contains owners/tenants who are currently on the project mailing list and have already, and will continue to, receive project information. A pre-construction neighborhood meeting notice will also be sent to these residents.

**Comment 10**
Page 4, Project Construction—The first paragraph mentions intermittent closure of the Stevens Creek Trail for a few hours a day during certain operations. This conflicts with information given to the City by the District in meetings. In the City's comments on the 60percent plans, the District was given a sample specification for traffic control on the trail if short closures are necessary. This allows closures for no more than a few minutes at a time. During that meeting, the District staff stated trail closures would not be necessary. It is plausible the trail may need to be closed for some specific, very brief and currently unforeseen event, solely for safety purposes, so the reference in this paragraph to trail closures should be rewritten to state that. Signage is mentioned in the first paragraph and the note should be added that the District's signage plan is subject to City review and approval. The second paragraph should mention an "Agreement for Temporary Access..." document with the City, and a Temporary Use Permit will be necessary for construction staging within the City's right-of-way. The second paragraph also mentions: "...there will be six feet of clearance from the sidewalk curb near the trail entrance for emergency access as required by the Fire Department." Please add wording to state the District will be responsible for the repair/reconstruction of any damage to the sidewalk, curb and gutter resulting from this use.

**Response 10:**
Subsequent to the publication of the Draft Initial Study and Mitigated Negative Declaration, City and District staff had a meeting and determined that trail closures would not be necessary, unless due to a safety issue. Additionally, 8-foot high plywood sheets will be installed along the top of the channel as a sound and construction safety barrier. Text has been modified to reflect this change. The District will be happy to continue to provide the City with project plans for review, including signage. Text has been added to include that the "District (contractor) will be responsible for repair of any damage, as a result of construction, to the sidewalk, curb or gutter.

**Comment 11:**
Page 5, Project Construction, Continued—The second paragraph on this page references removal of the bank slope protection. The City has a concern about the stability of the slopes of the creek while the slope protection and the concrete is removed but not yet replaced. Critical facilities are located on either side of the creek (Stevens Creek Trail on the west and a high-voltage power line base structure on the east). It is imperative that the District address this.

**Response 11:**

No bank or slope instability is expected. However, during the project design phase bank slope stability will be studied in detail. The District will adopt all necessary measures to ensure slope stability during construction.

**Comment 12:**

Page 5, Table 2—The trees in Table 2 that are marked with the symbol O* are designated as species native to California but not necessarily native to Stevens Creek riparian corridor. Because these trees are designated as not native to the corridor, they are only mitigated at a 1:1 ratio; however, it is not clear that these assumptions are correct. It may be that any California native plants must be replaced on a 3:1 basis. This needs to be investigated by the District.

**Response 12:**

According to the California Native Plant Society (CNPS), Juglans californica var. hindsii (black walnut) is a naturalized species all over California. CNPS has changed the scientific name of the species to J. hindsii (deleting the reference to California) in the 6th edition of their plant inventory. Only two of three native stands of black walnut are still extant in Northern California (and not within Santa Clara County.) It is the native stands that represent the genetic diversity of the taxon, including associated natural processes and species. The introduced stands do not provide these benefits. The origin of the (introduced) trees in Santa Clara County is most likely related to agriculture. The District agrees with this assertion and thus, designates the trees as non-native and aggressive weeds which degrade riparian habitat.

District practices on other capital improvement projects (i.e., Adobe Creek Watershed Planning Study) have used the replacement ratios of 1:1 for non-native, (which are considered landscaping trees) and 3:1 for native trees. That is, for each non-native tree removed one native tree is planted and for each native tree removed three native trees are planted. It could be pointed out that certain trees native to some parts of California (i.e., palm trees) found in Santa Clara County are clearly an introduced species and do not deserve the status afforded native species. The District respects this comment on the value of all trees and shall review its practice with regards to native and non-native trees.

**Comment 13:**

Page 6, Table 2, Continued—Under Landscaping, what is the meaning of the ratio 1:1:33 for the three coast live oaks—a typographic error? The trees at the top of the berm, even though they were planted by the City, should be treated as native trees and replaced at a 3:1 ratio. The size of the four oaks denoted should be included.

**Response 13:**
This is a typo and has been corrected in text to read 1:1.33.

The trees planted at the top of the berm, per discussions with the City were being treated as landscape trees due to their location and the fact that they were not grown from genetically specific watershed stock. Mitigation calls for replacement in-kind, which means similar size and same species. In addition to this mitigation, the District has arranged with the City to relocate the four oaks from the berm (at District expense), prior to construction, to another City park or along the Stevens Creek Trail. The District prefers to use watershed specific genetic plants within the riparian corridor. If the City confirms that it would like to replace the four oaks on the berm at a 3:1 ratio like the native trees, the District would be happy to do so, as this would enhance the riparian corridor in the area. The native material used is contract grown nursery stock approximately 2 years in age and is smaller in size than the existing trees. Direct seeding with acorns to propagate oaks may also be used for this project.

**Comment 14:**
Page 7, Construction Cleanup—The first sentence should read: "The temporary access road will be removed and the area will be restored 'to preconstruction conditions or better' prior to demobilization." The third sentence should read: "Surface soils will be scarified to allow proper rooting for plants, and the finished slope surface (*delete "will be similar to original condition"*) and topography will be restored to preconstruction conditions or better."

**Response 14:**
Comment noted and text changed.

**Section 3—Environmental Checklist Form**

**Comment 15:**
Page 1, Section 3.1, Item 10—This should list the City of Mountain View as another agency whose approval is required.

**Response 15:**
The District is not seeking project approval or permits from the City of Mountain View. According to the CEQA Guidelines sec. 15086, the District has fulfilled its obligation by consulting with and seeking comments from the City, as it is an agency with jurisdiction by law under CEQA. The City is has been actively commenting throughout the planning process during project meetings, design review and the District and City are in a negotiation process for a Joint Use Agreement for temporary access across City lands and encroachment on public right-of-way for this project.

**Comment 16:**

Page 1, Section 3.2 —Please check the following categories since this project may have impacts associated with them: Aesthetics, Noise, Transportation/Traffic.

**Response 16:**

With the implementation of District BMPs, mitigation measures and the short-term duration of construction impacts, the aforementioned categories do no have potentially significant impacts. Please refer to the following sections for detailed discussion; Aesthetics 4.1, Noise 4.11, and Transportation/Circulation 4.15.

**Comment 17:**

Page 2, Section 3.3, Item 1—Please check these categories under Aesthetics so they are rated as "Potentially Significant Unless Mitigation Incorporated": 1a, 1b, 1c.

**Response 17:**

See Response 16

**Comment 18:**

Page 4, Section 3.3, Item 6—Please change Landslides, Item d, so it is rated as "Less Than Significant Impact" rather than "No Impact." This is due to possible slope instability while the existing drop structure is being removed and due to the grading work associated with the access road construction.

**Response 18:**

There is no impact from landslides associated or anticipated with this project. There are no active landslides in this area and District design and construction specifications incorporate standard measures to adequately address this issue.

**Comment 19:**

Page 7, Section 3.3, Item 11—Please change the following categories under Noise so they are rated at "Potentially Significant Unless Mitigation Incorporated": 11a, 11d.

**Response 19:**

See Response 16.

**Comment 20:**

Page 8, Section 3.3, Item 15—Please change the following category under Transportation/Traffic so it is rated at "Potentially Significant Unless Mitigation Incorporated": 15f.

**Response 20:**

See Response 16.

## Section 4—Environmental Evaluation

**Comment 21:**
Page 1, Section 4.1a-d—In the last paragraph on the page, on the third to last line, the word "take" is missing before "...2 to 3 years for landscape..."

**Response 21:**
Comment noted and text changed.

**Comment 22:**
Page 2, Section 4.1a-d, Continued—In the first paragraph on this page, wording must be added that addressees the aesthetic impacts due to the construction of the temporary access road off Central Avenue and the removal of the stream gauge.

**Response 22:**
This section adequately addresses the aesthetic impacts of the project. The temporary access road will be restored when the project is complete and thus, will not have any impact. Also see Responses 1, 3 and 14.

Per the project description, the stream gauge housing (currently located on the west bank adjacent to the trail) will be relocated to the opposite (east) bank. After project completion the gauge housing will be on the bank opposite the trail and thus, be a less prominent feature to trail users.

**Comment 23:**
Page 8, Section 4.4b, Mitigation Measures Item 1, Continued—In the second to last sentence in the first paragraph, it should state that the revegetation plan will be prepared by the District as part of the bid documents for the drop structure project with oversight by a revegetation specialist during installation.

**Response 23:**
See Response 1.

**Comment 24:**
Page 8, Section 4.4b, Mitigation Measures, Item 2—In the last sentence of the first paragraph, this should also state (as in Item 1 above) that the revegetation plan will be prepared by the District as part of the bid documents for the drop structure project with oversight by a revegetation specialist during installation. In the second paragraph, the District must specify who will be maintaining the plants and their irrigation through the entire plant establishment period. The document states this responsibility will be the contractor's, but at the City's recent meeting with the District, District staff indicated that their own crews would do the maintenance.

**Response 24:**
See Responses 1 and 2.

Per standard protocol, District revegetation staff or a qualified revegetation consultant (overseen by District staff) will maintain the mitigation site.

**Comment 25:**
Page 9, Section 4.4b, Mitigation Measures, Item 4—Mountain View is misspelled in this paragraph.

**Response 25:**
Comment noted and text changed.

**Comment 26:**
Page 9, Section 4.4b, Mitigation Measures, Item 5—The second paragraph for this item is the **exact** same wording as Mitigation Measure Item 4. The paragraph is repeated twice. In the fourth paragraph of this item, the document refers to right-of-way. What right-of-way is the District referring to?

**Response 26:**
Mitigation Measure #4 refers to the entire project. Mitigation Measure #5 restates #4 and goes into further detail to specifically address the temporary access road and protection of surrounding riparian vegetation. This was done per the City's request.

For right-of –way, see Response 6.

**Comment 27:**
Page 10e: The City's Heritage Tree Ordinance measures circumference, not diameter. Please change this reference. The discrepancy could impact the statement that only one Heritage tree exists within the study area. While the report states the District is exempt from the City's Heritage Tree Ordinance, the City has specific procedures for other public entities to follow and past precedence on which the City would rely.

**Response 27:**
Comment noted and text changed, the reference was a typographical error not a technical one. Trees within the project footprint were measured using circumference per the City's Heritage Tree Ordinance.

As stated in the same paragraph, the District intends to follow the intent of the Mountain View ordinance and thus, has incorporated Mitigation Measure #3 into the project to specifically address or mitigate potential impacts to Heritage Trees.

**Comment 28:**
Page 11, 4.6e—On the fifth line from the top of the paragraph, after the word "channel," the following words should be added: "and along the area where the temporary access road will be built and then removed."

**Response 28:**
The text has been modified to include "...including the temporary access road..."

**Comment 29:**
Page 15, 4.9b-c—The reference to the "single" Heritage tree should be changed if the ordinance has been misinterpreted. If there has been a misinterpretation, the other three oaks may also qualify for protection.

**Response 29:**
See Responses 13 and 27.

**Comment 30:**
Page 16, 4.11a-b, Continued—In the first paragraph on the page, the following statement is made: "However, noise increases from this equipment is not expected to be severe, and would occur during daytime hours only." This statement is erroneous since the increased noise level will be very significant at 86 dB(A) and would violate the City's noise standards for outdoor areas. (Perhaps this noise level should be checked since it appears very high.) The City's noise standards are contained in the Environmental Management Chapter of the General Plan. A copy of the applicable section of that plan is enclosed. Please prepare a noise mitigation plan and reference the City's standards, recognize the potential significance of the impact and provide appropriate mitigation measures. Mitigation measures include requirements for noticing the adjacent property owners, designating a Disturbance Coordinator, providing a phone number and entering into the "Agreement for Temporary Access..." document with the City that requires the District to resolve noise complaints through construction scheduling and work hours.

**Response 30:**
The District references the attachment provided and notes that it states up to 75 decibels (CNEL) is acceptable. The ambient noise level in the project is rather high due to the adjacent Hwy 85. As stated in section 4.11 the District has committed to work with City and neighbors if complaints are received. Ambient noise level readings and periodic construction noise level readings (during concrete removal) will be done to monitor noise levels. Incremental increases during project construction are not anticipated to be potentially significant.

See Responses 8, 9 and 10.

**Comment 31:**
Page 18, 4.15f—This section should address how construction worker parking will be handled. Not only will the cul-de-sac be blocked for the entire construction period, but construction workers need to access the site and, without a parking plan, they would be driving to the site and parking on the street. This would impact trail user parking as well as resident parking along Central Avenue. Also, this section states: "...in six to seven site visits, only two vehicles were noted using parking in this area...." Were each of those site visits during the summer and/or fall (i.e., June through October) and at what time of day were the studies done? The District should confirm that the studied times are comparable to the proposed work schedule. Please prepare a parking plan addressing these issues for City approval.

**Response 31:**
See Responses 8 and 9 and Transportation/Circulation 4.15. Eight to 10 construction workers are anticipated for the project. Within the project area there are several public streets on which to park, including Central Avenue, that either residents, trail users or the construction workforce may select. Construction workers would only utilize parking Monday through Friday. Based on several site visits by both staff and consultant, at various times of day (or evening), and during various seasons, parking is adequate during the Monday through Friday construction schedule. Based on this qualitative data a parking plan is not required. Additionally, since the District is not closing the trail segment adjacent to the project there is no room for access or staging of construction equipment on the project site. Thus it requires utilization of a larger portion of the cul-de-sac.

## Appendices

**Comment 32:**
Figure 1—Project Location Map—This exhibit must/should be replaced since it is barely legible. Any number of superior maps are available that could be used.

**Response 32:**
The District would be happy to use one of the above mentioned maps and has contacted the City to obtain a copy.

**Comment 33:**
Figure 2—This map needs a legend to define what is being shown.

**Response 33:**
Comment is unclear. Figure 2 has a title, project location is highlighted on map, and other important landmarks are identified; Stevens Creek, the trail, Highway 85, major streets, scale, North arrow, and parcel outlines are all clearly identified.

**Comment 34:**
Appendix C—Landscape Berm Area, Note G—Mountain View is spelled wrong.

**Response 34:**
Comment noted and text changed.

**Comment 35:**
Appendix C—General Questions—This page only addresses trees. Will some of the underbrush be restored? Will mulch or bark be used on the berm between plants?

**Response 35:**
See Responses 3, 14 and 26. Additionally, per Appendix A, BMP 2.6 the District mulches all newly planted or bare soil to prevent erosion.

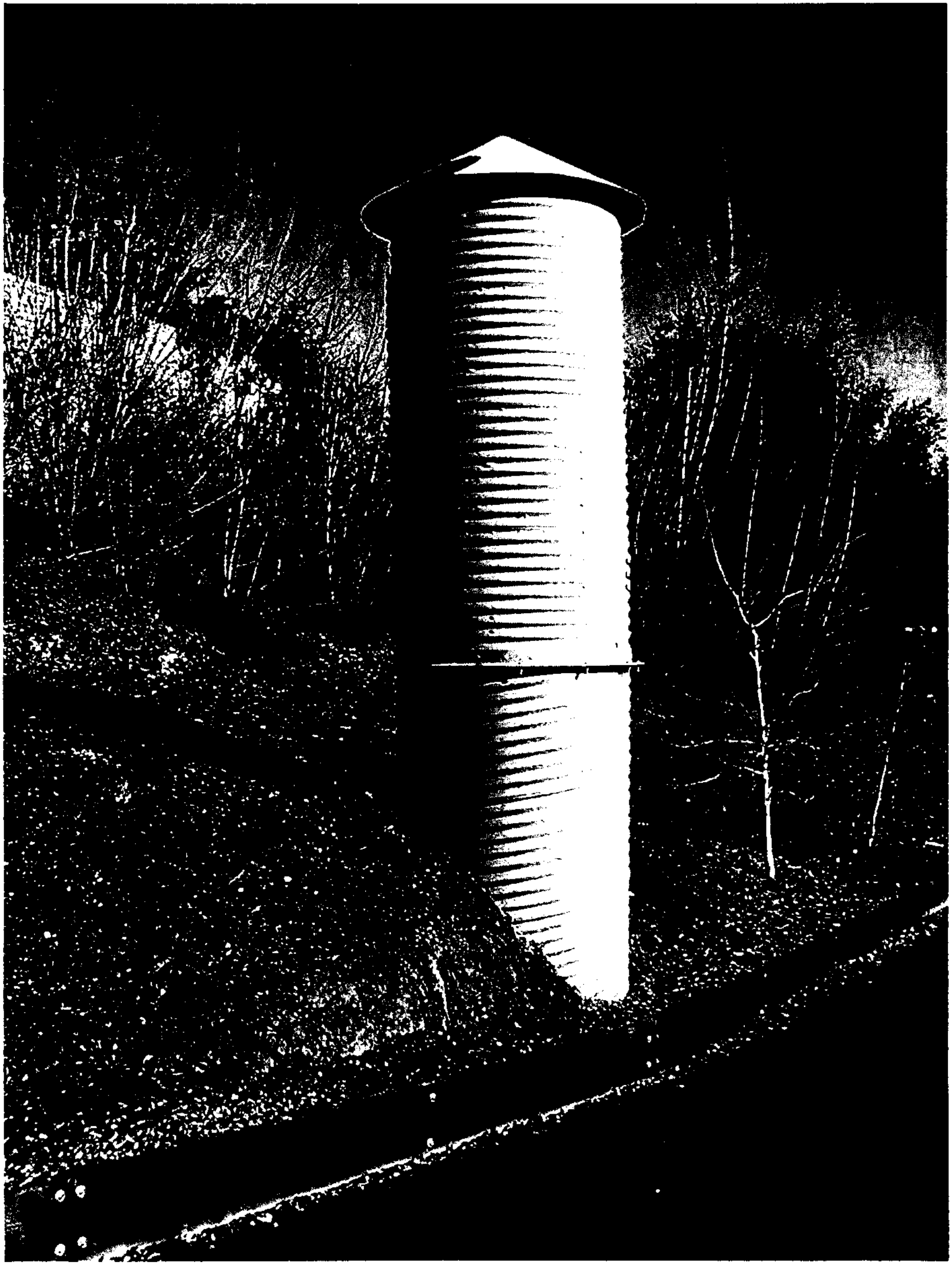
## City's General Comments

**Comment 36:**
Two water lines, a 21"transmission main and a 6"distribution water line, cross the channel within the project area. City staff met with District staff on this issue, so the District is aware of the situation. No reference to this could be located in the report, but this should be identified and discussed.

**Response 36:**
The aforementioned lines are outside of the construction footprint but possibly within the area on which construction vehicles and equipment may be operating or accessing the site. This is being addressed, per standard protocol, through the design process. Pot-holing to determine the location of the lines is in process. Subsequent to the results of the pot-holing, the information will be included on the final construction plans including, if necessary, adequate specifications to address treatment of the lines.

**Comment 37:**
At a recent meeting with District staff, City staff had questions regarding dust control and maintenance of the project site and Central Avenue. City standards on dust control and project site maintenance will be provided to the District to incorporate into the project specifications and plans.

**Response 37:**
At that meeting, the District answered the questions and provided examples of dust control measures from the District BMP manual, which is incorporated into this project, and thus into the specifications and plans. See Appendix A, BMP sections 4 and 5.



Existing location of stream gauge housing for streamflow station #35

CITY OF MOUNTAIN VIEW
Centennial Celebration

February 26, 2002

MR GORDON LAU—PROJECT MANAGER
SANTA CLARA VALLEY WATER DISTRICT
5750 ALMADEN EXPRESSWAY
SAN JOSE CA 95118-3686

Dear Mr. Lau:

Thank you for the opportunity to review the Draft Initial Study/Mitigated Negative Declaration (IS/MND) Report for the Water District's Stevens Creek Drop Structure Modification. The following are comments from City staff.

**Mitigated Negative Declaration, Findings**

- Page 1—Somewhere in the Findings, the District must address how they will mitigate damages to existing landscaping around the stream gauge being removed as part of the project.

- Page 2, Item 1—A statement should be included that the District will be responsible for maintaining the new plants. Also, the District may want to reevaluate their choice of location for the mitigation planting. Is the District considering the fact they will be planting in an area used historically by the District for creek access? If it is planted as proposed in this document, that access will no longer be available to the District. In the last sentence of this paragraph, the District mentions the revegetation plan will be prepared by the District prior to installation. The revegetation plan should be included as part of the contract documents for the Drop Structure project.

- Page 2, Item 2—It is not clearly stated if any trees will be planted on the west bank once the access road is removed and the area is regraded. The District states the temporary access road will be replanted with landscaping plantings lost at the top of the berm, but it does not state if any trees will be replaced on the mid and lower parts of the slope. Also, the wording is not clear on the replanting plan and might be interpreted that there will just be erosion control blankets and hydroseeding in that area. The City requests trees, blankets and hydroseeding and any other appropriate measures for adequate mitigation. The revegetation plans should be included as part of the bid documents for the drop structure project.

PUBLIC WORKS DEPARTMENT
500 CASTRO STREET, P.O. BOX 7540 • MOUNTAIN VIEW, CA 94039-7540 • 650-903-6311 • FAX 650-903-6499

- Page 3, Item 2, Continued—It should be made clear that the District will be responsible for the "Dri-Water" irrigation of the new plants for the entire plant establishment period.

- Page 3, Item 4—On the fourth line, these words appear: "...and to protect from damage any subgrade irrigation installation belonging to either the District, City of Mountain View, ..." A note should be added stating the City will be notified of any damage and repairs/replacements made to City Standards. Also, Mountain View is misspelled.

- Page 4, Item 5, Continued—The first sentence of the second paragraph refers to "right-of-way." What this refers to should be clarified.

- Page 4, Item 6—The report sites preconstruction surveys to look for nesting birds but does not indicate the nesting season for the birds most likely to be encountered. Please add this language to the report, possibly in Section 4, Environmental Evaluation, Page 10, Item d.

## Section 1—Introduction

- Page 3, City of Mountain View—The wording in this section should more clearly state that the District will be operating in full compliance with all City ordinances and requirements, including, but not limited to, the Heritage Tree Ordinance, securing a Temporary Use Permit and "Agreement for Temporary Access Across City Lands and the Encroachment on Public Right-of-Way at the Terminus of Central Avenue" and requiring its contractors to secure City Transportation Permits. The District should be fully aware of the applicable ordinances and requirements. Please contact me if any reiteration of this information is needed or if the District would like additional copies of documents detailing those requirements.

## Section 2—Project Description

- Page 4, Work Schedule and Timing—Wording in this paragraph states project construction will occur Monday through Friday, 7:30 a.m. to 6:00 p.m., but the District is aware this time could be reduced to end at 4:00 p.m. if neighbor complaints cannot be adequately addressed. Also, truck hauling will be limited to 9:00 a.m. to 4:00 p.m. This paragraph should make mention that land uses adjacent to this project are residential and the City is requiring the District to notify owners and tenants whose access includes Central Avenue, as shown on the exhibit entitled "Central Avenue" attached to this letter.

- Page 4, Project Construction—The first paragraph mentions intermittent closure of the Stevens Creek Trail for a few hours a day during certain operations. This conflicts with information given to the City by the District in meetings. In the City's comments on the 60 percent plans, the District was given a sample specification for traffic control on the trail if short closures are necessary. This allows closures for no more than a few minutes at a time. During that meeting, the District staff stated trail closures would not be necessary. It is plausible the trail may need to be closed for some specific, very brief and currently unforeseen event, solely for safety purposes, so the reference in this paragraph to trail closures should be rewritten to state that. Signage is mentioned in the first paragraph and the note should be added that the District's signage plan is subject to City review and approval. The second paragraph should mention an "Agreement for Temporary Access..." document with the City, and a Temporary Use Permit will be necessary for construction staging within the City's right-of-way. The second paragraph also mentions: "...there will be six feet of clearance from the sidewalk curb near the trail entrance for emergency access as required by the Fire Department." Please add wording to state the District will be responsible for the repair/reconstruction of any damage to the sidewalk, curb and gutter resulting from this use.

- Page 5, Project Construction, Continued—The second paragraph on this page references removal of the bank slope protection. The City has a concern about the stability of the slopes of the creek while the slope protection and the concrete is removed but not yet replaced. Critical facilities are located on either side of the creek (Stevens Creek Trail on the west and a high-voltage power line base structure on the east). It is imperative that the District address this.

- Page 5, Table 2—The trees in Table 2 that are marked with the symbol O* are designated as species native to California but not necessarily native to Stevens Creek riparian corridor. Because these trees are designated as not native to the corridor, they are only mitigated at a 1:1 ratio; however, it is not clear that these assumptions are correct. It may be that any California native plants must be replaced on a 3:1 basis. This needs to be investigated by the District.

- Page 6, Table 2, Continued—Under Landscaping, what is the meaning of the ratio 1:1:33 for the three coast live oaks—a typographic error? The trees at the top of the berm, even though they were planted by the City, should be treated as native trees and replaced at a 3:1 ratio. The size of the four oaks denoted should be included.

- Page 7, Construction Cleanup—The first sentence should read: "The temporary access road will be removed and the area will be restored 'to preconstruction conditions or better' prior to demobilization." The third sentence should read: "Surface soils will be scarified to allow proper rooting for plants, and the finished slope surface (*delete "will be similar to original condition"*) and topography will be restored to preconstruction conditions or better."

## Section 3—Environmental Checklist Form

- Page 1, Section 3.1, Item 10—This should list the City of Mountain View as another agency whose approval is required.
- Page 1, Section 3.2 —Please check the following categories since this project may have impacts associated with them: Aesthetics, Noise, Transportation/Traffic.
- Page 2, Section 3.3, Item 1—Please check these categories under Aesthetics so they are rated as "Potentially Significant Unless Mitigation Incorporated": 1a, 1b, 1c.
- Page 4, Section 3.3, Item 6—Please change Landslides, Item d, so it is rated as "Less Than Significant Impact" rather than "No Impact." This is due to possible slope instability while the existing drop structure is being removed and due to the grading work associated with the access road construction.
- Page 7, Section 3.3, Item 11—Please change the following categories under Noise so they are rated at "Potentially Significant Unless Mitigation Incorporated": 11a, 11d.
- Page 8, Section 3.3, Item 15—Please change the following category under Transportation/Traffic so it is rated at "Potentially Significant Unless Mitigation Incorporated": 15f.

## Section 4—Environmental Evaluation

- Page 1, Section 4.1a-d—In the last paragraph on the page, on the third to last line, the word "take" is missing before "...2 to 3 years for landscape..."

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Appendices

- Figure 1—Project Location Map—This exhibit must should be replaced since it is barely legible. Any number of superior maps are available that could be used.

- Figure 2—This map needs a legend to define what is being shown.

- Appendix C—Landscape Berm Area, Note G—Mountain View is spelled wrong.

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**City's General Comments**

- Two water lines, a 21" transmission main and a 6" distribution water line, cross the channel within the project area. City staff met with District staff on this issue, so the District is aware of the situation. No reference to this could be located in the report, but this should be identified and discussed.

- At a recent meeting with District staff, City staff had questions regarding dust control and maintenance of the project site and Central Avenue. City standards on dust control and project site maintenance will be provided to the District to incorporate into the project specifications and plans.

Please feel free to contact me at (650) 903-6633 if you need clarification on these comments.

Sincerely,

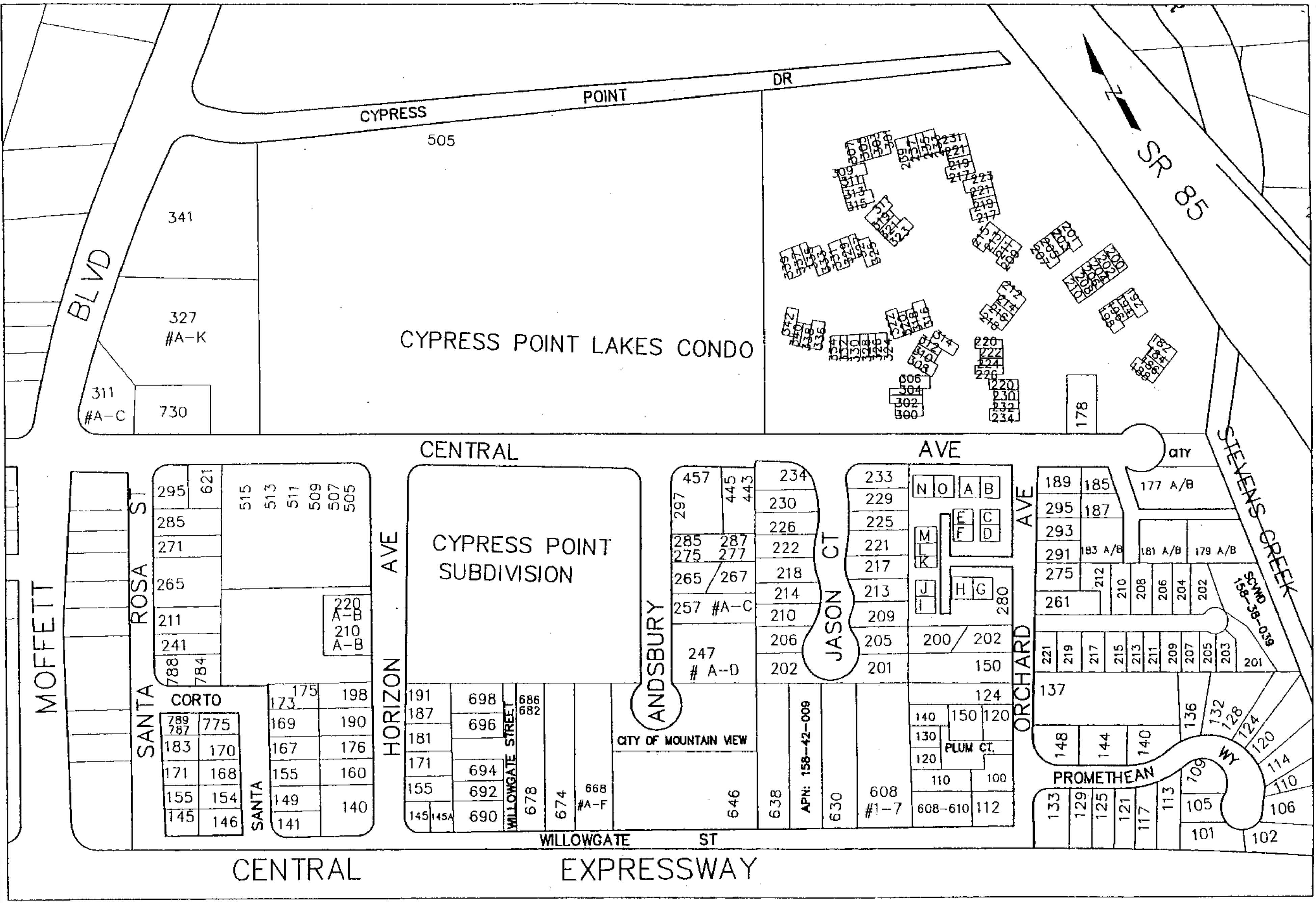
Linda DeWald

Linda DeWald
Real Property Manager

LDW/2/PWK
931-02-25-01L-E^

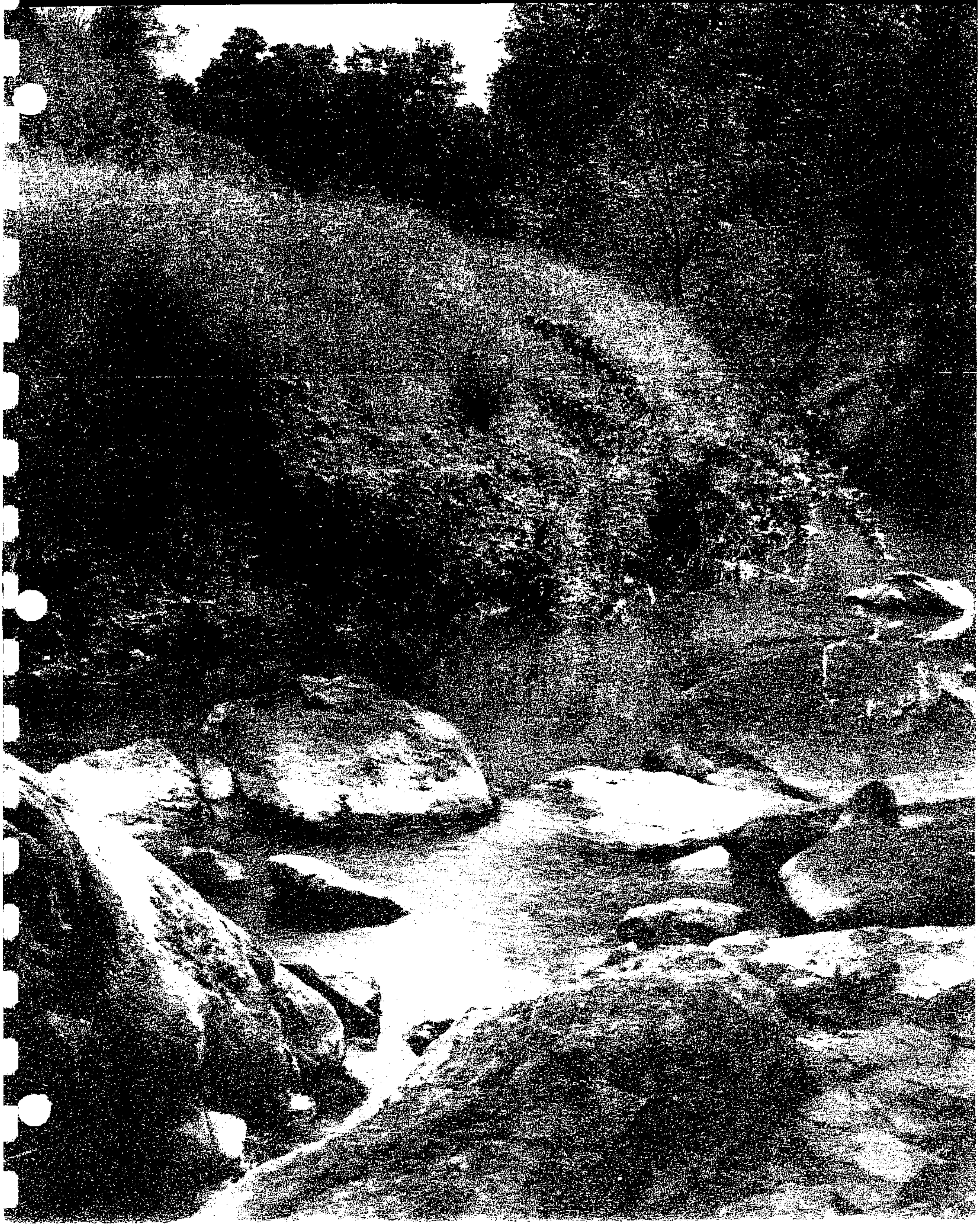
Enclosure

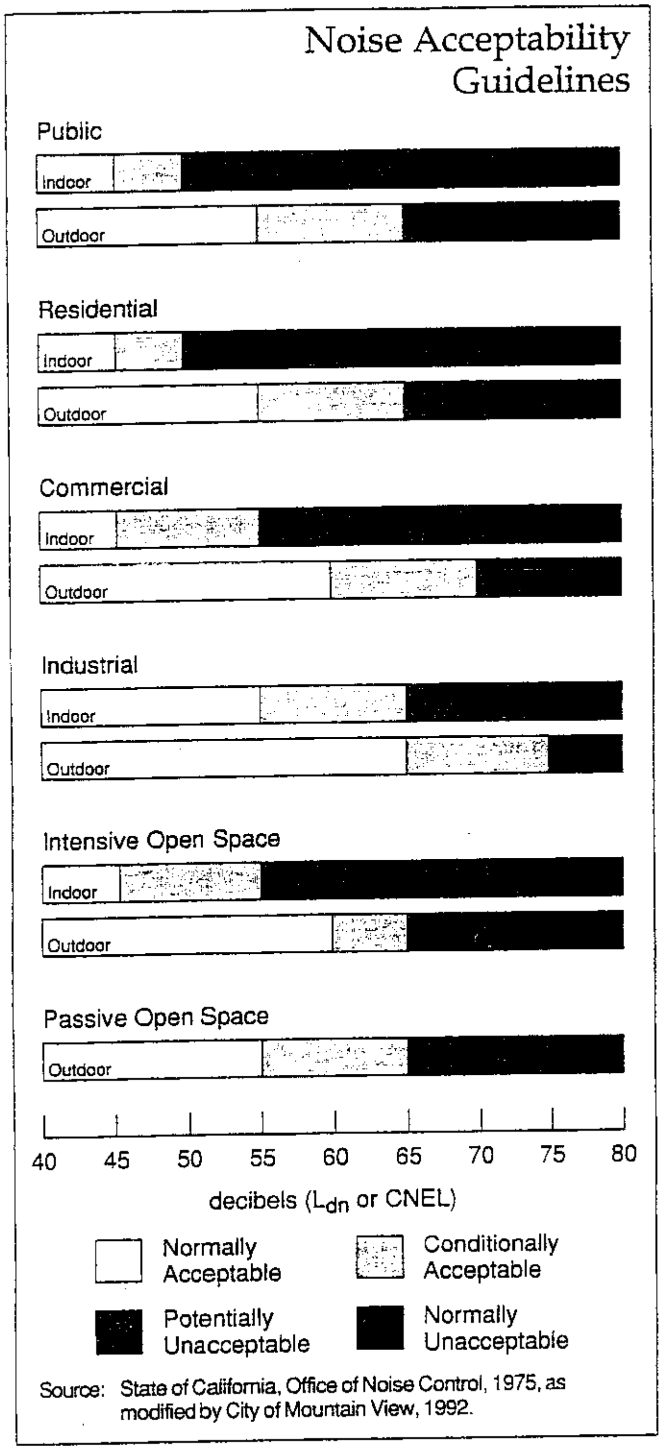
cc: PWD, APWD—Ko, CPM, SPM—Callan, TE, STE, TPM, RPM, EEM, ACSD,
POSM, ZA, SP—Eckhardt, File



CENTRAL AVENUE

# ENVIRONMENTAL MANAGEMENT CHAPTER





Source: State of California, Office of Noise Control, 1975, as modified by City of Mountain View, 1992.

*Figure 14. Noise Acceptability Guidelines.*

## GOAL O

## Reduce noise levels at the source.

**Stationary Noise Sources.** Fixed equipment such as air conditioners, pool filters, compressors, and industrial machinery can become noisy distractions to people living near them. These noise sources tend to be intermittent, but can occur at all hours of the day and night. The City's noise thresholds are designed to prevent these situations by establishing measurable criteria for architects and builders that guide them in planning the site and choosing building materials. Enforcement of the thresholds is built into both the environmental review process, using the California Environmental Quality Act and the development review process. In both cases, City staff reviews development applications and requires proper site design and construction methods to keep exterior noise levels to a minimum and prevent the transmission of noise from outdoor sources to indoor receptors.

The City has also enacted a Stationary Equipment Noise Ordinance that restricts fixed equipment from exceeding 55 decibels when measured at any location on a neighboring residential property. Any plans submitted for a building permit must have documentation that proposed equipment meets this standard.

**Policy 41.** **Restrict noise levels coming from stationary sources.**

**Action 41.a** Maintain noise thresholds for each land use category.

**Action 41.b** Use CEQA and the development review processes to restrict new development from exceeding its noise threshold.

**Action 41.c** Enforce the City's Stationary Equipment Noise Ordinance.

**Action 41.d** Encourage NASA/Ames Research Center to reduce and control noise produced by its wind tunnels.

**Motor Vehicle Noise.** In 1990, noise levels throughout the city were calculated according to the Ldn noise measurement system. (See Figure 15, Noise Contour Map.) As in most cities, vehicles on freeways and expressways were found to be the primary noise sources in Mountain View. Noise levels of 72 to 76 decibels were measured on Highway 101, 69 to 74 decibels on Route 85, 65 to 74 decibels on Route 237, and 64 to 70 decibels on Central Expressway. High levels of noise on these freeways and expressways is generated by high levels of traffic. Some of the noise on Central Expressway is caused by the more than 50 commuter trains and freight trains that travel through Mountain View every day. There is more information on this topic in the Circulation Chapter.

State and federal legislation set individual vehicle noise standards. Cities can enforce these standards, but they cannot establish stricter standards. Cities can only prohibit engines without suitable mufflers and sound-am-

# DEPARTMENT OF FISH AND GAME COMMENTS AND RESPONSES

**Comment 1**

The stated purpose of this project is to remove a concrete fish passage barrier and replace it with "fish friendly features" that include a new set of concrete vortex weirs. The Department recommends that final Stevens Creek drop structure modification plans be agreed upon with the Department's fish passage design specialist, George Heise. All finalized plans should be submitted to the Department. The Department further recommends that the Santa Clara Valley Water District (District) consult with the National Marine Fisheries Service (NMFS) to ensure that fish passage meets NMFS's requirements.

**Response 1**

Both George Heise, at CDFG and Jonathan Mann at National Marine Fisheries Service have been consulted regarding this project. Both individuals were sent copies of plans in 1999 when initial planning for the concrete weir design began. The SCVWD design engineers and District's environmental consultant (John Gilchrist) have had several follow-up conversations with both individuals regarding overall passage issues and small design modifications to the structures. In addition, the District held a day-long workshop on this and several other instream projects in October 2001 that was attended by both individuals. Mr. Heise and Mr. Mann have consistently supported the project and have made findings that the concrete weir structures will provide fish passage through this reach of Stevens Creek. The District will forward copies of final plans to both agencies.

**Comment 2**

On Page 4 of the "Mitigated Negative Declaration" it states that, "...construction of the creek channel will be conducted during the (period of) June 15 to October 15, which is the low flow period when the stream channel should be dry," yet it states on Page 2-4 of the initial study that, "Construction activity in the stream channel is proposed for the period between June 1 and October 15, 2002." The Department recommends that the construction period within the riparian area be confined to the period between June 15 and October 15 so as to avoid impacts to steelhead, a species federally listed as "threatened."

**Response 2**

Although the District normally adheres to the 6/15 to 10/15 window for stream work on most of its salmonid streams, Stevens Creek at the project location dries completely in most years by mid-May. In 1999 and 2000 the stream was dry by May 1. Because of these conditions, the District does not believe a 6/1 construction start date will have any affect on steelhead smolt out-migration, or summer-rearing juvenile steelhead. If stream flow is occurring at the end of May in the 2002 construction year, the District will work with DFG and other resource agencies on a construction plan to insure there are no impacts to steelhead.

**Comment 3**

On Page 3 of the "Mitigated Negative Declaration" it states that, "Monitoring will provide for a two-year inspection-maintenance period for all revegetation plantings, including 80 percent survival rate criteria. Planting installation shall be done during November and December to ensure the best probability for survival." The Department, however, recommends that a five-year revegetation monitoring plan be conducted annually with a minimum 80 percent survival rate after five years. If at the end of three years there is less than 80 percent survival, all dead plants should be replaced and a contingency plan correcting maintenance problems should be submitted to the Department. At the end of the five years of monitoring there should be a minimum of 80 percent survival. The Department further recommends that all planting be done between October 15 and January 15 to take advantage of the winter rainy season. This recommendation provides a larger time window than that stated.

**Response 3**

The District feels the 2 monitoring plan with 80% survival rate criteria, as outlined in the document, is adequate. At the end of 2 year (annual) monitoring period if 80% criteria was not met, all dead plants would be replaced and a contingency plan, per permit conditions, would be submitted to the Department. Plantings installed from cuttings are generally installed during the plant's dormant phase during November or December. Installation of trees or other nursery stock plants can be done earlier to take advantage of the rainy season.

**Comment 4**

In Table 2 on Page 2-6, it states that the mitigation for the three native coast live oak trees will be "1:1:33" (sic). The Department recommends re-vegetating at a ratio of 1:3. For every native tree that is removed, three native trees (indigenous to the present corridor) should be planted. Revegetation monitoring should be as described previously, a five-year monitoring plan with a minimum of 80 percent survival rate.

**Response 4**

The 1:1:33 ratio is a typo, it should read 1:1.33. Text has been changed.

The District's plan specifies 4 oaks will replace 3 existing oaks in the landscape area. This landscaped berm does not have sufficient space for 12 trees (including valley oak at 3:1) and 10 ceanothus shrubs. Severe overcrowding would result in poor growth and poor species survival, resulting in suboptimal aesthetic and habitat quality.

**Comment 5**

On Page 4-5 it states that "If wetted stream is encountered during construction, preconstruction surveys and consultation with NMFS to execute fish relocation if trout are involved will be affected. Relocation would be done per permit conditions" (sic). The Department recommends that when work in a flowing stream is unavoidable, the entire stream flow be diverted around the work area by a barrier, temporary culvert, and or a new channel capable of permitting upstream and downstream movement of fish. More detail will be provided in the Streambed Alteration Agreement issued by the Department prior to construction. The Department recommends that the District implement measures to avoid fish relocation or rescue. The Department requires that the District consult with the Department's biologists Mr. Kevan Urquhart at (831) 649-2882, or Kristine Atkinson at (831) 427-2638, as well as with NMFS, prior to any relocations.

**Response 5**

The District agrees that fish rescue or relocation should be avoided, but due to the channel configuration at the project site and rapidly falling late spring streamflows, fish can get trapped. Therefore, a contingency recommendation was made to relocate fish *if necessary*. As suggested in the comment, CDFG will also be contacted if there is any possibility of relocation. In the event there is streamflow during construction, the District has included in contractor specifications provision for a coffer dam and conveyance pipe capable of providing downstream fish movement. A new temporary stream channel is not possible at this location. The District fully intends to comply with all provisions and conditions of the 1601 Streambed Alteration Agreement.

**Comment 6**

Due to the presence of steelhead and the possible presence of the California red-legged frog, both Federally-listed species, the Department recommends that the District contact NMFS and the U. S. Fish and Wildlife Service (USFWS). The District may need to consult with NMFS and/or USFWS to determine if any permit, pursuant to the Federal Endangered Species Act, is required.

**Response 6**

The District has been in contact with representatives of CDFG and NMFS (other than G. Heise and J. Mann) regarding this project. In addition, partial funding for the project is being provided by a CDFG SB 271 Grant. The District has applied for a Corps of Engineers Section 404 permit, and if COE staff believes there is a potential for take of red-legged frog or steelhead, they will initiate consultation with USFWS and/or NMFS.

**Comment 7**

Any activity, including revegetation, that would affect the bed, channel or bank of Stevens Creek or another stream, requires a Streambed Alteration Agreement with the Department. For a Streambed Alteration Agreement package, please contact the Department at (707) 944-5520 or online at www.dfg.ca.gov/1600.

**Response 7**

The District recognizes its obligation to obtain a Streambed Alteration Agreement for this project, has prepared an application, and has been in contact with Erica Cleugh (the CDFG contact for this project). Ms. Cleugh has advised the District not to file the 1601 application until a final CEQA document has been prepared. When this Mitigated Negative Declaration/Initial Study is finalized, an application package will be immediately forwarded to Erica in the Monterey office, as requested.

State of California - The Resources Agency
GRAY DAVIS, *Governor*

**DEPARTMENT OF FISH AND GAME**
http://www.dfg.ca.gov
POST OFFICE BOX 47
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February 28, 2002

Flex your POWER

Ms. Melissa Dargis
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
Fax: (408) 267-6247

Dear Ms. Dargis:

Stevens Creek Drop Structure Modification
Santa Clara County
SCH # 20021012097

Department of Fish and Game personnel have reviewed the above-referenced Draft Initial Study/Mitigated Negative Declaration and we have the following comments.

The stated purpose of this project is to remove a concrete fish passage barrier and replace it with "fish friendly features" that include a new set of concrete vortex weirs. The Department recommends that final Stevens Creek drop structure modification plans be agreed upon with the Department's fish passage design specialist, George Heise. All finalized plans should be submitted to the Department. The Department further recommends that the Santa Clara Valley Water District (District) consult with the National Marine Fisheries Service (NMFS) to ensure that fish passage meets NMFS's requirements.

On Page 4 of the "Mitigated Negative Declaration" it states that, "...construction of the creek channel will be conducted during the (period of) June 15 to October 15, which is the low flow period when the stream channel should be dry," yet it states on Page 2-4 of the initial study that, "Construction activity in the stream channel is proposed for the period between June 1 and October 15, 2002." The Department recommends that the construction period within the riparian area be confined to the period between June 15 and October 15 so as to avoid impacts to steelhead, a species federally listed as "threatened."

On Page 3 of the "Mitigated Negative Declaration" it states that, "Monitoring will provide for a two-year inspection-maintenance period for all revegetation plantings, including 80 percent survival rate criteria. Planting installation shall be done during November and December to ensure the best probability for survival." The Department, however, recommends that a five-year revegetation monitoring plan be conducted annually with a minimum 80 percent survival rate after five years. If at the end of three years there is less than 80 percent survival, all dead plants should be replaced and a contingency plan correcting maintenance problems should be submitted to the Department. At the end of the five years of monitoring there should be a minimum of 80 percent survival. The Department further recommends that all planting be done between October 15 and January 15 to take advantage of the winter rainy season. This recommendation provides a larger time window than that stated.

In Table 2 on Page 2-6 , it states that the mitigation for the three native coast live oak trees will be "1:1:33" (sic). The Department recommends re-vegetating at a ratio of 1:3. For every native tree that is removed, three native trees (indigenous to the present corridor) should be planted. Revegetation monitoring should be as described previously, a five-year monitoring plan with a minimum of 80 percent survival rate.

On Page 4-5 it states that "If wetted stream is encountered during construction, preconstruction surveys and consultation with NMFS to execute fish relocation if trout are involved will be affected. Relocation would be done per permit conditions" (sic). The Department recommends that when work in a flowing stream is unavoidable, the entire stream flow be diverted around the work area by a barrier, temporary culvert, and or a new channel capable of permitting upstream and downstream movement of fish. More detail will be provided in the Streambed Alteration Agreement issued by the Department prior to construction. The Department recommends that the District implement measures to avoid fish relocation or rescue. The Department requires that the District consult with the Department's biologists Mr. Kevan Urquhart at (831) 649-2882, or Kristine Atkinson at (831) 427-2638, as well as with NMFS, prior to any relocations.

Due to the presence of steelhead and the possible presence of the California red-legged frog, both Federally-listed species, the Department recommends that the District contact NMFS and the U. S. Fish and Wildlife Service (USFWS). The District may need to consult with NMFS and/or USFWS to determine if any permit, pursuant to the Federal Endangered Species Act, is required.

Any activity, including revegetation, that would affect the bed, channel or bank of Stevens Creek or another stream requires a Streambed Alteration Agreement with the Department. For a Streambed Alteration Agreement package, please contact the Department at (707) 944-5520 or online at www.dfg.ca.gov/1600.

Questions regarding this letter and further coordination on these issues should be directed to Ms. Atkinson, Environmental Scientist, at (831) 427-2638; or Mr. Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

Sincerely,

Robert W. Floerke
Regional Manager
Central Coast Region

cc: Office of Planning and Research
State Clearinghouse
Post Office Box 3044
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